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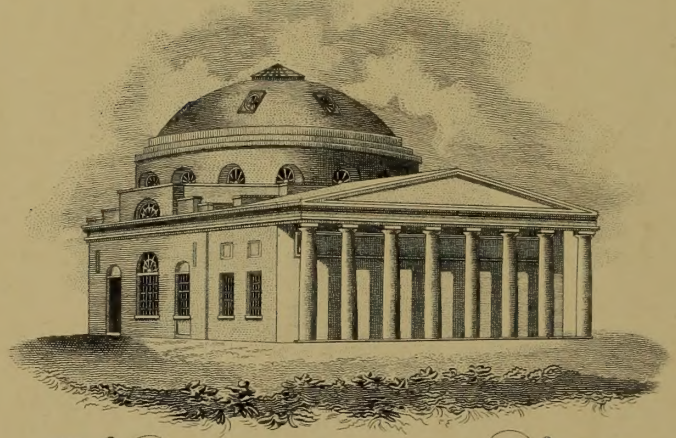

University of Maryland

University of Maryland Thesis

Early Degree of Mechanical and Design in Engineering Thesis Corrected Tables of Contents

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University of Maryland Theses

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These manuscripts described as either an Inaugural Dissertation or an Inaugural Essay were presented to the University of Maryland for the Degree of Doctor of Medicine and/or Doctor of Physic during the years 1813-1887. The individual dissertations were bound together during the 1940's. The original tables of contents for the bound volumes contained multiple errors in authors' names, titles, and/or years. To address these errors, an additional "Corrected Table of Contents" has been inserted at the beginning of each volume.

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(CORRECTED TABLE OF CONTENTS)

UNIVERSITY OF MARYLAND

THESES

1862 (c)

Author	Title	Notes
Pierce, H. Lindsley	Oblique or Indirect, Ventro or Direct, Concealed Inguinal, and Femoral and Umbilical Hernia	
Price, Richard Elbridge	Pneumonia	
Payne, Q.T.	Menstruation	
Ridgely, Nicolas G.	Dysentery	
Robinson, John B.	Pneumonia	
Rowe, Walter B.	Typhoid Fever	
Shure, Charles A.	Dyspepsia	
Simpson, Edward B.	Labor	
Smith, Francis James	Typhoid Fever	
Stevenson, John M.	Infantile Laryngo-tracheitis	
Trautmann, C. Theodore	Anatomy and Physiology of the Heart	
Trippe, Edward R.	Clinical Report of Cases	
Trumbo, George Harrison	Injuries of the Head	
Vallandigham, Irving S.	Enteric Fever	

HSHSL 2012 for the UM Digital Archive. Sources consulted for corrections: Original Dissertation; University of Maryland Medical Faculty, Matriculation List, 1821-1851; Cordell, Eugene F. "University of Maryland, 1807-1907" (New York : The Lewis Publishing Company, 1907), Volume 2.

Author	Title	Notes
Vannort, Ezra Adams	Chorea	(Illustrations)[1]
Wells, Charles A.	Diabetes Mellitus[2]	
Wheeler, William B.	Dysentery	
Whitridge, William	Diphtheria	
Yingling, George S.	Water	
Zeigler, Asa Hamilton	Rheumatism	

[1] Original pencil drawings: illustrative: of diverse medical themes; interpretation of a primate skeleton; Davidge Hall – first building of the medical school.
[2] Noteworthy calligraphy on title page.

HSHSL 2012 for the UM Digital Archive. Sources consulted for corrections: Original Dissertation; University of Maryland Medical Faculty, Matriculation List, 1821-1851; Cordell, Eugene F. "University of Maryland, 1807-1907" (New York : The Lewis Publishing Company, 1907), Volume 2.

UNIVERSITY OF MARYLAND

THESES

1862 (c)

Pierce, H. Lindsley	Hernia *	23p.
Price, R. Elbridge (Richard)	Pneumonia	41p.
Payne, Q. T.	Menstruation	16p.
Ridgely, N. G. (Nicolas)	Dysentery	16p.
Robinson, J. B. (John)	Pneumonia	26p.
Rowe, W. B. (Walter)	Typhoid Fever	24p.
Shure, C. A. (Charles)	Dyspepsia	17p.
Simpson, E. B. (Edward)	Labor	22p.
Smith, F. T. James (Francis)	Typhoid Fever	42p.
Stevenson, J. M. (John)	Infantile Laryngo-tracheitis	21p.
Trautmann C. Theodore	Anatomy and Physiology of the Heart	25p.
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Trippe, E. R. (Edward)	Clinical Report of Cases	27p.
Vallandigham, I. S. (Irving)	Enteric Fever	35p.
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Yingling, G. S. (George)	Water	40p.
Zeigler, A. Hamilton (Asa)	Rheumatism	24p.

An Inaugural Dissertation

on oblique or indirect, ventro or direct, concealed in-
-quinal, and Femoral and umbilical Hernia.

Respectfully submitted to the Faculty

— of the —

University of Maryland

for degree of Doctor in Medicine, by

H. Lindsley Pierce of Va.

MDCCCLXII.

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2

The lucid demonstration of Hernia, by our Prof. of Surgery and Anatomy, is the predisposing cause of this effort. The essential nature of the affection will be discussed in the pages to follow this

I do not select this subject because I prefer Surgery to practice! but simply because it seemed an interesting one to our Prof. of Surgery and Anatomy, and our demonstrator of Anatomy Dr Butler, and further I think it the only one that will be written this season upon said subject.

I will conclude my preliminary remarks by saying, that although I feel myself as competent to perform the operation as anyone who has simply read, and has yet to pass the ordeal of the Green room, yet I should prefer the case be given to a

[illegible] operator, unless the life of a patient demands [illegible]

Hernia means a protrusion of any viscus or [illegible] portion of the body from its normal condition may be called hernia. The word is used in Surgery [illegible] cavity. The abdominal walls certainly offer greater facilities for this affection, owing to natural cavities, canals, and outlets, and the entire covering and [illegible] composed of muscles, tendons and fascia. Hernia must always appear through natural cavities or canals which hold or transmit certain structures. [illegible] this, weakness of the abdominal parietes, malformation or deficiency of strength in the different abdominal muscles and their tendons [illegible]

The exciting causes are sudden muscular exertion, undue straining, lifting heavy weights, blowing wind instruments, severe or prolonged coughing, parturition, anything in fact which causes violent exertion.

Hernia

as before stated may take place at various parts of the abdomen. The most common are Inguinal Hernia which occurs through the inguinal canal formed by the descent of the testicle about one and a half inches above Poupart's ligament; and Femoral hernia which take place below Poupart's ligament and occurs mostly in females. The cause of this difference is in the size of the opening. In the male the inguinal canal transmits only the round ligament of the uterus and is much smaller than the same orifice in the male. The same predisposing and exciting causes always acting the same, of course no protrusion will occur unless there is

the least resistance. A mistake may occur in diagnosing hernia, a swelling being mistaken for the same by its similarity. The mode of its appearance, the direction in which the enlargement proceeded, its fluctuation, receding when the patient is in a recumbent position and bulging out when in an upright one. Cirsocele and Hydrocele of the scrotum may often be confounded with scrotal hernia of which I will further speak —

We find mentioned in medical works a variety of hernia — Phrenic Ventral, Pudendal, congenital, scrotal, umbilical &c. Inguinal, Femoral or Crural and Umbilical hernia being the most prevalent of them I will write.

Inguinal hernia is divided into three descriptions, Oblique or indirect, Ventro or direct and concealed — and all classes are divided into three conditions.

reducible, irreducible and strangulated. Hernia is said to be reducible when the protruded part can be returned to its natural position by simple taxis, or the patient assuming a recumbent posture. The recent hernia is often reduced with greater difficulty owing to the cavity or orifice being small and the intestine becoming inflated with wind or fecalent matter. Sometimes when the protrusion has existed for a length of time and the orifice has become gradually larger, it is reduced more readily. Reducible hernia should never be allowed to enlarge for fear of adhesion between the sack and its coverings - safe means are known and taught us by the Medical faculty for its reduction and confinement and often ultimate cure.

Hernia is rendered irreducible in consequence of adhesions which it contracts to the walls of the new cavity into which it protrudes

There may be great enlargement of the intestine or omentum of which the tumor is composed, the abdominal cavity may contract at the point where the intestine escapes, or from long continued displacement of its natural contents. Accumulation of fæces in the protruded part may also occur all of which or any of which may determine the tumor as irreducible. The usual functions may proceed without much obstruction or any immediate danger to life. Persons so afflicted are more or less subject to constipation, [illegible] and indigestions.

Strangulated hernia occurs when the protruded part is arrested in its position and circulation completely stopped. There is no material change in the sac, but an increased volume in the contents of the protruded part, which owing to a constriction cannot be passed. Here the danger to life is imminent, and immediate treatment

by a thorough surgeon is absolutely necessary. The contents of the bowels alone may not suffer from the existence of a stricture, but the circulation of the blood, both arterial and venous, will soon jeopardize the patient's life and the demand is attention even sooner than the accumulation of feculent matter.

The contents of the sac sometimes is composed of intestine, sometimes of omentum and often of both. By an examination the contents may often be discovered. If the sac be filled with intestine it will feel globular, smooth and elastic, and when reducible retires suddenly with a gurgling noise. When filled with omentum it will have a lough lumpy feel and retires slowly when pressed upon with an entire absence of all sounds.

In ancient time the subject

of Hernia was much abused, it was the custom of the native of [illegible] to use the knife in all protrusions if the patient would submit. The protrusion was returned in mass without opening the sac, or any attention to gangrene being feared. Castration was frequently performed, the ancients believing it necessary for the cure of scrotal hernia. Such rude treatment we know at the present day, was founded upon erroneous theories, which are entirely dispelled by the giant strides of the medical world.

The aperture formed by the descent of the testicle is the one through which inguinal hernia descends. The coverings of the tumor are similar to those of the testicles. An old Physician in Virginia told me to carefully study the descent of the testicle and its coverings if I desired to know and understand the nature of hernia, and

not depend as much upon the numerable names as upon the number of the coverings. The testicle remains beneath the kidney until the seventh month of foetal life, and in their descent pass before them a fold of peritoneum which as we know is a serous membrane. The communication between the peritoneum and the fold covering the testicle now called tunica vaginalis is afterwards obliterated. When this division does not take place the intestine will pass down the same track, forming what is termed congenital hernia. The next structure the testicle comes in contact with is the fascia transversalis, it is impressed by the vessels and [illegible] and the cord. This protrusion takes place above pouparts ligament and is called the internal abdominal ring. The next opposing structure is the transversalis abdominis and the internal oblique

muscles which are blended together in common tendon they form the third coating of the testicles and also of hernia. These blended tendons are stretched before the internal abdominal ring and the testicles derive their muscular coat from this source termed the Cremaster muscle. The next structure is the fascia tendon of the external oblique this being tough does not form one of the coverings and the testicle, or the tumor, pass obliquely downwards and inwards from whence oblique hernia takes its name; it then passes out the external abdominal ring, which is in the external oblique. These rings are not or should not be directly in line, the external ring should be nearer the symphisis pubis. If the protrusion is seated in the inguinal canal between the two rings, it is called Concealed inguinal hernia. At the external ring the testicle

pushes against the fascia extending as it does the ring, called the inter-columnar fascia. Next the superficial fascia and then the skin is cut through. The first structure the testicle or tumor meets with is the peritoneum. The peritoneum forms then the hernial sac.

Ventro inguinal or direct hernia does not pass through the inter-columnar ring and thence by the inguinal canal through the external ring, but passes as its name implies, directly through the external abdominal.

The coverings of Oblique hernia are commencing from the exterior, first then skin, the superficial fascia, then the inter-columnar fascia, the cremaster muscle, the fascia transversalis and the peritoneum or hernial sac.

The coverings in direct inguinal

hernia are commencing as before, the skin, the superficial fascia, the intercolumnar fascia, the blended tendon of the transversalis and internal oblique muscles, the fascia transversalis, and the peritoneum. The only difference is in the name, the cremaster muscle being derived from the blended tendons of the transversalis and internal oblique muscles, forms the covering in oblique and the tendons themselves forming the covering in direct, the indirect is most prevalent, the external ring being covered behind by this blended tendon is a great preventive of direct hernia. When the tendon is ruptured the it does not come out of the coverings of the hernial sac.

Femoral hernia takes place below poupart's ligament and on the inner side of the femoral vein. This passage called the crural ring is covered by

the fascia transversalis, and is perforated by a number of large holes for the passage of lymphatics from the inguinal glands. This forms a very insecure support to the contained viscera, and a hernia at this point is scarcely to be wondered at. The space between the femoral vein and femoral ligament is called the crural ring and is filled with loose tissue, this is the point through which the femoral takes place. The intestine in femoral hernia pursues the same course as in inguinal. The intestine first pressing against the peritoneum near the crural orifice it gives way and thus is formed the hernial sac. The crural septum forms the next covering. The intestine then passes through the sheath of the vessels, that is the sheath which encloses the femoral artery & vein, which is perforated with a number of holes for the transmission of various structures; the tw-

-mor then encounters the superficial fascia and lastly the skin. Thus commencing from the interior, femoral hernia is covered in by the skin, then the superficial fascia, then the crural septum and lastly the peritoneum or hernial sac. Femoral hernia appears on the upper and inner portion of the thigh, the tumor is often doubled, or in medical words, the fundus bent upon its neck, which we are advised to remember when making taxis.

In regard to the treatment again in hernia, we are first instructed to employ taxis to determine whether it is reducible or not, the patient must be placed in such position that the surrounding structures might be relaxed. The recumbent or semi-recumbent posture is usually observed, and in femoral hernia the thigh is flexed. Then gentle and steady pressure is to be

made in the direction from whence the protrusion appeared. The patient is reminded not to make any exertion, but to relax the abdominal muscles as far as possible.

Pressure is to be made as follows: In Oblique inguinal hernia, pressure is to be made upwards and outwards.

In Ventro-inguinal hernia, pressure is to be made upwards and backwards.

In Femoral hernia, pressure is to be made towards the centre of the thigh and then upwards.

In umbilical hernia, pressure is to be made directly backwards.

When inflammation occurs pressure should be avoided. An operation becomes necessary, but the patients chances of recovery

is numerous. Careful handling of the tumor should be practised as great mischief may otherwise be done. Local and constitutional means are often practised in order to aid the reduction. The warm bath is highly recommended by some of the older surgeons, as it produces a quietness reaching even to syncope. The muscular structure becomes relaxed and the taxis is thereby assisted. Emetics and purgatives have been frequently used, but seldom with benefit. Retention is effected by suitable appliances, which at the present day are numerous and necessary.

When the hernia is found to be irreducible, the protrusion must be prevented from further descent by the constant application of a truss that will resist the way of the tumor, gentle laxatives to regulate the bowels, gentle exercise and an entire avoidance of all

exciting causes are absolutely necessary. When strangulation occurs, an operation is almost always necessary owing to the stoppage of feculent matter in the intestine. Purgatives should be used with care as the stricture may be more formidable than at first supposed. The knife is usually the final resort in strangulated cases, although taxis and relaxing remedies are used at first. Vomiting of stercoraceous matter is considered a certain sign of complete strangulation of the intestine.

The mode of operation recommended in some of the Surgical works, is to place the patient in a recumbent position upon a table. The later writers direct the patient to be placed near the edge of the table with each foot resting upon a chair. The skin then being divided in inguinal hernia from the neck nearly to the base of the protrusion, the

successive layers described in the anatomy of the part shall each be cut through by a probe pointed bistoury. After division of the fascia transversalis the sac is exposed. The sac is known by its dense and bluish appearance, it is often however mistaken for the intestine. The intestine generally presents a dark livid hue, and is recognised from the sac by a flexure or crease which always exists in it. The peritoneum should be pinched up and rubbed so that no portion of the intestine would be punctured. A quantity of serum escapes through the opening made in the peritoneum, and then the contents of the sac are thoroughly exposed, which may be either intestine, omentum or both. The finger should be introduced to determine the point of stricture, and if not discoverable by the finger, a grooved director should be used. After this point is ascertained, a probe pointed bistoury with

a cutting edge near the point only, is to be introduced along the tunica and an upward cut made about the twelfth of an inch. The only danger in the operation is in wounding the epigastric artery, which arises from the external iliac, and lies between the two abdominal rings. The point of stricture is almost always at the external abdominal ring, but often at the internal. If there are no greenish spots upon the intestine the protrusion may be carefully returned, the edges of the wound brought together and a bandage applied to prevent the tumor from again descending. If greenish spots are discovered gangrene is about to occur, and if the spots are not large they may be punched up and fine ligatures passed around them; the ligatures will gradually find their way into the intestine and pass off with the fæces. If the omentum be found greenish it should

be entirely removed. Rest and quiet should be enjoined after the operation, and anodynes to quiet, instead of purgatives to increase the peristaltic motion of the bowels, are now recommended. If the intestine should be extensively gangrenous it should not be returned as in order to save life it is positively necessary that an artificial anus should be established. If the intestine extensively mortified, should be returned to the the abdominal cavity, its contents would escape into the cavity of the abdomen, and death of course ensue. If the intestine adheres to the sac in but few places, separation may be safely effected, but if adhesion is extensive, the intestine must be allowed to remain after relieving the stricture.

The other operation of relieving the stricture within opening the sac is stated as dangerous, as the intestine may be

mortified, and a fatal result occur by returning it to its normal position without a proper examination.

In Concealed inguinal hernia, in order to reach the stricture, the blended tendons of the transversalis and internal oblique, and also the external oblique, will have to be divided, as these muscles cover the inner side of the external ring, and the intestine lies between the two rings in the inguinal Canal.

The descent of Femoral hernia having been described, the only difference in the operations is in the division of the strictures. The cut resembles an inverted T. The position of the patient being the same. The stricture may be at the mouth of the sac or Gimbernats' ligament. The danger of hemorrage in this operation is from wounding the obturator artery, which arises sometimes from the epigastric.

and sometimes from the internal iliac. Umbilical hernia is a simple variety mostly occurring in children and women who have been pregnant. Strangulation is rare, sometimes the protrusion becomes very large. A small pad secured around the abdomen by strips of adhesive plaster will prevent further enlargement. When an operation becomes necessary we are reminded by wiser and older heads not to make the incision too large, owing to the difficulty in keeping the parts reduced. A semi-circular incision is to be made and the outer lamina carefully dissected up, the neck will almost always dilate at this stage, and should it not the stricture part must be relieved by the knife.

The integuments after the operation for Hernias are to be brought together by one or more stitches. These may be

supported by adhesive strips. Above this a soft compress of lint and old linen is to be placed the whole secured by bandage. On arising or coughing or when at stool the invalid should be careful to have the wound properly supported.

An

Inaugural Dissertation

on

Pneumonia

Submitted to the examination of the Provost Regents and Faculty of Physic

of the

University of Maryland

by

Richard Elbridge Price

Among all the comforts allotted man-kind nothing is certainly more desirable than the enjoyment of health. But the human frame in consequence of its delicate structure is so susceptible of disease that no sooner has the new born babe inspired the breath of life than it becomes liable to some of those complaints peculiar to the Infantile State.

Holy writ informs us that in the beginning when the omnipotent creator formed man out of the dust he enjoyed the most sublime happiness and was altogether free from those pains and infirmities to which his posterity has since been subjected but as by his fall he forfeited the favour of his maker and was doomed to suffer both sickness and death; Providence therefore implanted in him a natural instinct to seek

for remedies to preserve health and moderate the violence of disease nor has he sought in vain many of those diseases which were formerly supposed to be incurable have at length yielded to modern improvement in the healing art, and many Medicines have been discovered of late which act almost with certainty in removing those complaints which were anciently denominated the opprobria medicinis as this is the case we have reason I think to anticipate a fond hope that ere long few avenues will remain to the grave save that of old age In the first steps of our enquiry we meet indeed with much rarity and obscurity but the farther we penetrate into nature we find so much analogy among all her-

works as to be forced to acknowledge to severe her simplicity one of the most painful and interesting diseases with which the Practitioner has to encounter is Pneumonia a disease that we not only often see in Hospitals or in dwellings of the poor and destitute but a disease which goes on in its destructive march without regard to age sex occupation or rank killing some of the fairest and brightest of Gods creation it is a disease that has brought grief and mourning into the Habitation of many of us releasing us of some of those we most dearly loved while the very mention of its name gives rise to to a feeling of almost utter hopelessness as to its issues for it seems to me that it is a

disease under every variety of condition medicine is equally unable to cure.

Pneumonia

The spongy tissues or parenchyma of the lungs often becomes the seat of inflammatory action. This disease is now universally named Pneumonia. At is present it is to be presumed from the extent of the lung surface and its surrounding tissues and its peculiar structure the disease may assume many varieties; these varieties being founded upon the different constituents of anyone portion which may be inflamed upon the relation of the disease to other diseases with which it may be associated and upon the character of the accompanying fever or general state of the system. The inflammation may occupy a considerable extent

of the lungs continuously embracing a whole lobe more or less, or even one whole lung. This is the common form of the disease and the form of the disease which we design to treat in the present thesis. For the sake of distinction various terms are used. The simple form is sometimes called Lobar Pneumonia and Lobular Pneumonia when small isolated portions of the lungs are inflamed as for example distinct lobules or parts of lobules with some lung intervening usually one lung only is inflamed yet occasionally both are involved and the disease then is distinguished by the name of Double Pneumonia. In some rare cases chiefly or exclusively the air-cells appear to be affected and hence this form is styled "Vesicular Pneumonia."

The other forms or varieties are thus named, the seat of the disease being already indicated when the names are mentioned; intervesicular or interlobular Pneumonia; Bluer Pneumonia. The complaint is frequently primary; but is also frequently a mere accompaniment of other diseases in which case it is called secondary. We also hear of a typhoid and a bilious Pneumonia. Finally the disease may be either acute or chronic. The anatomical character of the disease will be treated of in the following pages in the use of percussion and auscultation in these diseases and consequently we will speak commonly of the symptoms of these diseases as disclosed by the two great methods of percussion and auscultation. Signs or symptoms referable to the lungs which are ascertained by means of percussion and auscultation; by the former

we ascertain the loss of the normal of resonance of the part struck. The sound is normal in the 1st stage of the Pneumonia, that is the stage of congestion. The substance of the lung is gorged with blood or bloody serum: it is more easily torn, more in that respect like the spleen: hence the term fitting to this first stage of the inflammation; as hepatization to that which succeeds it. Dullness more or less complete in the second stage is heard, but persistent and not changing place unless by extension of the disease to fresh portions of lung substance known by the second stage is that caused by the combining of the inflammation in the lung hence undergoing further alteration. It is still red externally and within; but it crepitates no longer under pressure it sinks in waters it contains in fact no air. The spongy

character of the organ is lost; it is evidently solid. The cut surface resembles very much the cut surface of the liver. Hence Laennec and after him most writers have applied to this altered condition of the lung the term hepatization. The hepatized lung is denser and more solid but it is also more friable, more easily crushed and broken. This results from the softening of the areolar tissue which holds its component parts together. In the third stage percussion is semi-dull. By auscultation we learn the qualities and modifications of the voice as reflected through the chest and of the breathing. It is of the greatest importance to the physician in the cause of the lung inflammation for by it we ascertain its situation its extent and every step of its pro-

gress by means of the ear. All the symptoms that give us the most sure information respecting the nature of the disease its increase and aggravation on the one hand, and its abatement and diminution on the other, spring out of the actual changes wrought in the pulmonary substance itself; and these changes are disclosed by the method of auscultation. Auscultation in pneumonia speaks generally thus; Puerile respiration in whole or part of one or both lungs may be heard in a stage immediately preceding the actual development of pneumonic inflammation of the lung and is a valuable premonitory sign. It is a sign of disease generally; it is mostly partial; heard in certain parts only of the chest. It is called puerile because it has the character of the respiration of a child. Puerile respiration

occurs in those parts of the inflamed lung that are healthy and crepitus in the 1st stage when the lung-tissue is engaged a very fine moist râle like the sound of salt crackling in the fire or that caused by rubbing a lock of hair between the fingers close to the ear. bronchial respiration a sound of air rushing through a tube of considerable size a blowing noise. Laennec calls crepitus of 1st stage crepitant Rhonchus: it may also be called minute crepitation; or the crackling of Pneumonia. It may be heard in a very limited spot in the begining and is an important sign. It is a direct symptom having immediate reference to the structure of the part. And if we consider what the part is, and what the disease: the part, the lungs and the disease, inflammation; we con-

not too highly value this simple symptom (simple and mean as it may seem) which gives the earliest and surest intimation that such a disease has begun as tends to disorganization, and the inevitable loss of life, unless quickly arrested by its counteracting remedy." Latham.
The crackling sound does not long remain in any part. As the case proceeds, the sound is less and less heard, and length is not heard at all in that spot; it may be succeeded by one of two very different things. The place may be taken by the natural respiratory murmur again. When this is so it denotes the resolution of the inflammation. But the crackling may cease, and either no sound be heard at all in its stead, or another morbid sound. This teaches us with absolute

certainty that the disease is growing more severe and serious, that the lung is becoming or has become hepatized.

It may be indeed said that the crepitus of the 1st stage or the crackling sound proceeds from the minutest division of the air-tubes and from the ultimate vesicles of the lungs. Sometimes when this crackling ceases, the ear applied to the corresponding surface of the chest feels it to heave up in inspiration but catches no sound at all much more commonly however a new sound reaches the ear. It is not the vesicular rustle; it is not the minute crepitation but a whiffing sound is audible like that produced by blowing through a quill. Little gust of air are puffed in and out most distinct often at the

termination of a slight cough or hum. This sound is called bronchial respiration. When bronchial respiration exists there is usually also dullness on percussion. The degree in which this is present will depend on the circumstances of the case. If a portion of crepitant and permeable lung even a thin portion should intervene between the inflamed parts and the walls of the chest there will still be resonance on percussion, though it will not be exact by the natural resonance. If the hepatized part come close up to the ribs the sound elicited by mediate percussion will be flat or dead. In this state of the lung you will generally hear puerile respiration. In all inflammatory diseases there is reached a stage of anxious and painful interest. In Pneumonia this period or stage is that when no sound but

bronchial breathing is heard during respiration. Why is it so? because it is impossible to tell whether the lung will revert gradually to its healthy state or whether it is passing into the third stage that purulent infiltration. If the lung should revert to its former healthy state for a while nothing is heard but bronchial respiration, a slight crepitation begins again to be distinguishable especially at the end of each act of inspiration; gradually this increases in extent and intensity, and as it increases the bronchial breathing and the bronchial voice become proportionally less distinct because the texture of the lung is again becoming permeable by air and therefore a worse conductor of sound. By degrees the bronchial breathing and voice disappear altogether; the vesicular murmur begins

again to mix with the crepitation and at length supersedes it; and the lung is restored to its previous fitness for the purposes of respiration. The same symptoms recur again but in a reversed order. The returning crepitation is however coarser and larger and is less regularly diffused than that of the advancing pneumonia: and even when nothing is heard in the ordinary condition of the breathing but the natural vesicular rustle, some crepitation is found for some little while to mingle with it towards the end of the full inspiration. If the inflammation passes into the third stage that of purulent infiltration if the disease has passed through its stage of engorgement and into its stage of hepatization it cannot be said whether

the lung remains in the state of hepatization & as it may remain or whether it has passed into the third stage. But at last if the structure of lung break down, and a portion of it be expectorated and finds its way into the vacant spot and gives rise to large gurgling crepitation. It must be borne in mind that auscultation does not always and in all cases aid in discovering the existence of Pneumonia and it may often escape the notice although Pneumonia does exist, the ear is able to collect nothing of it, nothing indicative of its situation or its extent or even its very existence. The pulmonary expansion is clear all over the thorax; nay much more strong than is natural, and this circumstance

justifies the belief that from some cause or another not necessarily from Pneumonia, a portion of the lung has ceased to discharge its function and the other parts have taken it up. This failure on the part of auscultation happens when the inflammation occupies a small portion only of the lung and that portion is central or deeply seated at a distance from the walls of the chest. Expectoration—Rusty or prune juice, viscid and tenacious in 1st and 2d stages, semi-purulent or muco-purulent or wholly purulent in the 3d stage. The cough in Pneumonia is not particular in its character it affords but little information not usually paroxysmal; its frequency and severity not always proportional to the intensity and extent of the

inflammation; usually dry in the outset, but in a few hours accompanied by the most certain indications of the presence of Pneumonia.

Now the expectoration of Pneumonia when well marked, consists of transparent and tawny or rust coloured sputa uniting in the vessel containing them into one jelly-like and trembling mass, and of such viscidity that the vessel may be turned up side down and strongly shaken without their being detached from its bottom or its sides.

It cannot be said that when there is no such expectoration as this, there is no Pneumonia, but it may be affirmed that where there is such expectoration, there almost certainly is always Pneumonia.

At the outset of the disease either nothing is expectorated or simply some bronchial

mucus; but on the second or third day generally the matters expectorated assume the characteristic appearance; i.e. composed of mucus intimately united or combined with blood. The sputa is not streaked with blood, as is often the case in Bronchitis, nor is there the unmixed blood of Haemoptysis.

The peculiar color of the sputa is explained by the quantity of the blood expectorated and mixed with the mucus giving the color from a yellow or be that of rust or of a decided red at the same time becoming glutinous and tenacious, adhering together so as to form one transparent homogeneous mass. The readi flowing of the mass gives hope that the inflammation of the lung has not passed its first stage or degree. When the sputa however acquire an extraordinary degree of viscidity there is reason to

fear the second stage of inflammation has been reached. Then the sputa becomes rusty and very viscid the pneumonia is then at its acme the expectoration remains for sometime stationary. At length if the inflammation recede the sputa become again less tenacious, less red or yellow and more like the expectoration of mere catarrh But if the disease advance from bad to worse the rust colored sputa may continue to the end. Commonly there is less expectoration in that case or even none at all for the reason its excretion is no longer passable because of its extreme tenacity or on account of the patients debility. Hence the patient is liable to suffocation from accumulation in the bronchia trachea and larynx and consequently fill up all the air passages. In the third

stage he named two kinds of sputa may be seen in some instances, viz. a fluid having the consistence of gum-water and of a brownish red color like liquorice-water or plum-juice; sometimes very perfect pus is excreted. Although these rust or orange colored sputa are commonly present during the more active period of pneumonia affording a peculiarity to the disease yet they do not constantly accompany it. Sometimes matters expectorated are like those of catarrh. Sometimes there is scarcely any expectoration at all. In rare cases of the disease when it passes into gangrene of lungs the expectoration is of a grayish or reddish or dirty grease color, is more liquid exhales a fetid smell similar to that produced by gangrene of other parts. In some rare cases of circumscribed abscess of the lung from Pneumonia the purulent expectoration is horribly offensive.

Diagnosis

The diseases with which Pneumonia is most liable to be confounded are bronchitis, pulmonary oedema, pleurisy and certain states of phthisis. It is in cases of bronchitis extending to the minute ramifications of the bronchia that the greatest resemblance is presented. But in the former affection the sensations are more those of soreness than acute pain and are usually seated in the anterior and upper part of the chest behind and in the vicinity of the sternum; the expectoration though sometimes streaked with blood never has the extreme viscid and rusty character of the sputa of pneumonia, and when it once begins is much more copious; no true crepitant rale is heard but instead of this the dry and mucous rales; there is no bronchial respiration or resonance and very seldom a permanent want of the vesicular murmur in any part of the

chest and finally there is no considerable dullness on percussion. But not infrequently the two diseases are combined and when the pneumonia is in the center of the lung or its base it is sometimes difficult if not impossible to distinguish between them. It is distinguished from Pleurisy in this wise. In Pleurisy the pain is sharp and severe and usually concentrated in one spot in Pneumonia it is moderate and dull when the Pneumonia is wholly uncomplicated but as this is generally associated with inflammation of the Pulmonary Pleura the inflamed portion of the lung the symptoms is little to be relied upon. The character of the expectoration is more important being viscid and rusty in pneumonia mucous and transparent or whitish or simply streaked with blood in pleurisy. In the latter the expectant rale of pulmonary inflammation is quite wanting in

the other the friction sound and ego-phony of pleurisy. In both bronchial respiration exists but it is more extensive and heard over greater parts of the chest in pneumonia than in pleurisy with much effusion. Percussion yields no destructive sound in the earliest stage but the dullness is perceived earlier in pleurisy and the flatness of the advanced stage is more complete. In pleurisy the flatness often changes with the position of the patient which is not the case in pneumonia. The whole may be flat in pleuritic effusion only one half of it in hepatization. The hand placed over the seat of the pleuritic effusion feels no vocal vibration while in pneumonia it is more elastic than in health. In pneumonia the distension of the chest flatness or bulging of the intercostal spaces and the displacement of the heart liver

stomach etc which occurs in pleurisy with copious effusions are wholly wanting. From phthisis it may be distinguished by knowing that pneumonia more rarely occupies the upper part of the lung. The previous courses of the symptoms would also serve to distinguish the affection.

Prognosis.

In cases of primary pneumonia of the common or lobar kind occupying a portion of a single lung occurring in persons of a good constitution and without complication of any kind there is every reason to expect a favorable issue. Cases of this kind almost always end in recovery under proper treatment and not unfrequently even without remedies or with such as are improper. The disease appears to be remarkably mild between the age of six and twenty-one. This fact is abundantly proven by facts collected by the best authorities

in the hospitals of Europe especially of Paris. Or debilitated persons and in those above fifty years the disease is much more fatal. In very advanced age it is extremely dangerous. It is said to be more unfavourable in its termination in the upper than in the lower lobes. The danger is much increased when the whole of one lung is affected; and in the double pneumonia is always very great. Secondary Pneumonia is much more fatal than the primary and the lobular than the lobar variety, but the greater danger of the lobular independently of the fact that it is more liable to escape notice and therefore not to be treated properly is owing to the fact that it is generally secondary and is apt to occur in debilitated constitutions. It may be asserted that the more there is of a typhoid form the more there is of danger and consequently if treated

This lymphoid form with the same energetic depletion which is adopted in the ordinary form of Pneumonia it may be enormously fatal. In many cases of pneumonia an exceedingly hurried respiration, inability to lie down even dark and consistent or thin brownish or blackish expectoration copious diarrhoea or colliquative sweats an extremely frequent feeble or irregular pulse amounting in the adult to 140 in the minute are all very dangerous symptoms.

Causes

Vicissitudes of the weather are among the most frequent causes of Pneumonia. Sudden exposure to cold when the body is warm and perspiring is very apt to induce it. This is especially the case when the individual exposed is at the time labouring under a catarrhal attack. Direct injurious agents or poi-

sonous inhalations, the excessive use of the voice, violent exertion of any kind which accumulates the blood in the lungs, powerful emotions, excesses in drinking, the suppression of habitual discharges, the retrocession of gout or rheumatism and the sudden disappearance of cutaneous eruptions are ranked among the occasional causes. A long continued position upon the back is said to give rise to the disease in debilitated constitutions. It sometimes follows accidental injuries or surgical operations of a severe character; at least abscess in the lungs have been observed under these circumstances, though it may be doubted whether they are not rather the results of the deposition of pus produced elsewhere than of original pulmonary inflammation. Various diseases are apt to be accompanied with pneumonia and

are thought to favor its production. The one in which it most frequently occurs is probably bronchitis, but it also frequents in measles and hooping cough. It is an occasional attendant upon smallpox scarlatina and erysipelas. Phthisis can scarcely run its course with more or less of it. Affections of the heart not infrequently occasion it by the pulmonary congestion to which they so often give rise. It is not infrequently in nervous or typhoid fever and it is occasionally associated also with the miasmatic and typhus fevers. Chronic diarrhoea appears to predispose to it in young children (Gerhard). It is one of the most common
which attend reaction after the collapses of malignant cholera. It is occasionally epidemic but probably only as an associate of other diseases

Of the predisposing causes cold may be ranked among the most efficient since the disease prevails most in cold countries and in the colder season. It is probably as common in cold and dry as in moist climates. It is not uncommon in the mountainous regions of this Country. It is especially apt to occur towards the end of winter and in spring. Those occupations are believed to predispose to it which expose the lungs to injury from over exertions or to inhalation of irritating substances and which render necessary an exposure to the vicissitudes of the weather without due protection. Some persons have a peculiar tendency to the disease without any known cause and suffer from repeated attacks. Age and sex do not appear to have any very considerable over the frequency of its occurrence. In the first five or six years of life it is not

uncommon but is thus apt to be confounded with other diseases which are probably its real causes. It is most commonly the tubercular variety which occurs at this age. Perhaps the period of life at which it is most frequent is from 20 to 30 or 35 when the body has attained its full height but is still spreading laterally. The disease is more frequent in men than in women, but the reason of this probably is that the former are more exposed to the vicissitudes of the weather and to other exciting causes.

Treatment.

In Pneumonia various modes of treatment have been proposed and adopted by practitioners in different countries. The most general modes are the stimulant and antiphlogistic. The former mode, i.e. the stimulant is merely the revival of the old

system of treating diseases: as all diseases was said to be a want of power in Nature to throw off morbific matter hence nature must be assisted in this kindly effort by means of stimulants etc. This plan has been elaborately set forth by the late Dr. Todd of London and proposed to the world with much ingenuity and cleverness from the results of his mode of treating Pneumonia in the London Hospitals. It is necessary to be on our gaurd in accepting his entire conclusions. It is a fact that the class of his patients were those in a reduced state of health in want of the necessities of life broken down by hard labor and exposure and of intemperate habits and often these patients were not admitted until long after the acme of the disease had been reached

fever these patients cannot stand an active measure for their complaints but require all the little strength left to be carefully husbanded to carry them through the struggle. It cannot be denied however that patients with pneumonia of a typhoid character and tendency are unquestionably benefited, may even require under certain circumstances the stimulant plan. Enough has been said of this plan. But if it is asserted that it is and must be used in every case we beg leave to observe that it is our opinion that such a mode of procedure militates against common sense and is contravened by every principal of sound physiology and rational therapeutics. This brings us to speak of the plan we would institute in cases of-

Common Pneumonia uncomplicated.
From the nature of the disease we are convinced that in persons with vigorous Constitutions bleeding is the most efficient remedy. In disease does the abstraction of blood better serve than when well developed Pneumonia. This evacuation is called for not only in reference to its direct effects in relieving inflammation but also with a view of diminishing the labor of the lungs and thus procuring rest for the diseased organ as far as possible. In deciding upon the quantity of blood to be taken, the stage of the disease, the state of the pulse and constitution of the patient must guide us. In a vigorous patient in the early stage of the disease, with a strong pulse, and before hepatization has been fully established from 16 to 20 oz

may be taken by the first operation. There is some reason to hope in this stage of the disease its progress may be arrested by decided measures. Should the symptoms have in no degree abated we may bleed again at an interval of from 12 to 24 hours and the operation may be again repeated until the inflammatory symptoms are decidedly checked. In some cases the pulse does not seem to indicate the use of the lancet as when the lungs are overwhelmed with sudden and extensive congestion occasioning partial asphyxia the surface becoming pallid or purplish, suggesting the idea of great prostration of the vital forces. It generally happens that the pulse rises under the lancet and this affords an indication that the remedy has been rightly employed. After the first bleeding the

the bowels should be thoroughly evacuated by an active cathartic but subsequently throughout the case it will be sufficient merely to keep them open once or twice a day by small doses of a saline cathartic. The bowels having be evacuated recourse should be had to small doses of tartar emetic repeated at short intervals: from the 12th to 20th for example every hours or two hours during the day, when the skin is hot and dry. This may be accompanied with the nitrat mixture or Sedlitz if borne well by the stomach. In cases attended with vomiting the effervescing draught should be substituted for the antimonial after two or three days when the circulation has been sufficiently reduced opiates at bed time may be used along with the above mix-

-bined plan. If pain should continue after general bloodletting has been carried as far as admissible and especially if the physical signs indicate the unabated progress of inflammation blood should be taken by cups or leeches from the chest to an extent corresponding with the strength of the patient. Very frequently under this treatment the symptoms of inflammation will gradually subside and the patient recover without further remedies. But should the disease prove obstinate it will be proper to resort to the mercurial impression. When the symptoms are threatening and a speedy mercurial impression is requisite 3-4 grs Calomel with ½ gr or 1 gr Tart may be given every 4 hours. Sometimes even this combin

Calomel produces purging and worries the bowels. In such cases the mercurial pill should be substituted in proportional doses with the same additions. It is important to push the mercurial plan until the gums becomes somewhat affected when the symptoms will generally begin to improve. It will often be proper to begin the mercurial plan upon the 5th day of the symptoms have not begun to decline before that period but the precise time may be earlier or later in any particular case and must be left to the judgment of the Practitioner. At the same time that this plan is in operation a blister may be with great propriety applied to the chest. Should the case linger the blister may sometimes be repeated with advantage In the

declining stage of the disease expectorant medicines are often useful Should the strength fail in the advanced stage it will be often found very useful to empty Carbonate of Ammonia in two and a half, five, or ten grains doses at intervals of two hours. Wine may also be added and if hectic symptoms should set in or Copious night sweats occur, recourse should be had to Sulphate of Quinia The timely employment of moderate stimulats with a nutritious diet such circumstances, often save life. Dangerous symptoms may be met with Chloride of Lime, Opium Quinia and the mineral acids especially the nitre muriatic. But the course of treatment would be very imperfect without attention to various

points of management not yet particularized. It is important not to disturb any of those actions which may be considered as critical but as a general rule rather to follow the lead of nature and encourage them. The patient should lie with his shoulders somewhat elevated and in protracted or debilitated cases especially should have this position changed occasionally in order to prevent the settling of blood into any one portion of the lungs under the influence of gravitation. In the physical examination of the chest care should be taken to expose the surface as little as possible. Pressure should not be made so strongly as to occasion pain. The air of the apartment should be of an uniform temperature

and warm, but purified by sufficient ventilation. In the early stage the diet should be of mucilaginous or farinaceous drinks such as gum water, barley water thin gruel etc, At a more advanced stage when the fever has been somewhat subdued, tea and toasted bread or crackers, with a little rice or mush may be allowed: after these, milk, and finally in convalescence broth and the lighter meats eggs oysters etc, In cases of debility it is highly important to resort to these nutritious substances before convalescence, There is reason to believe that patients in Pneumonia have sometimes been starved to death.

An
Inaugural Desertation
On
Menstruation
Submitted to the Examination
Of the
Provost Regents & Faculty of Physic
Of the
University of Maryland
For the
Degree Of
Doctor Of Medicine
By
J. T. Payne
Maryland

Menstruation.

Woman in health and disease in whatever climate she may exist and whatever may be her social condition her physical and moral constitution she is under the dominion of a physiological and mysterious law, that strong and powerful law, which subjects her during a certain portion of her life to a periodical hemorrhage from the reproductive organs. This function termed menstruation which keeps all the others under its empire may be called the regulator of all the other systems because of the intimate sympathies existing between the uterus and the other organs. Without this discharge says Virgil beauty either appears not or is lost the order of the vital movements is destroyed the soul falls into langour and the body into exhaustion. This function commences in healthy females about

the period of puberty: a certain amount of sanguineous fluid is eliminated by the uterus and escapes from the vagina every month, the quantity which escapes each time is from four to eight ounces varying according to the constitution of the individual. It is not discharged at once but gradually. As to the character of the secretion it it greatly resembles venous blood, being of a dark red color thin containing no fibrine and is not coagulable nor easily decomposed. It is found to be of an acid character. That it is excreted by the uterus has been ascertained in cases of prolapse and inversion of that organ that it is really a secretion by its lining and not blood mechanically filtered through it. is now generally admitted. The generative organs of the female are in a state of activity only during the

prime of life embracing a period of about thirty years and during this time the most remarkable characteristic of their functions is their periodicity. The occurrence of menstruation defines the period of puberty at which the girl becomes a woman and capable of conception as its cessation terminates the prolific period of female life. The affects of the developement of this function upon the body and mind of a young girl are very striking. The figure enlarges becomes rounder and more fully formed the pelvis expands the mammae enlarge. and the general form becomes graceful and dignified. The mental change is as remarkable: the pursuits of girlhood are exchanged for more womanly interests, and a more exquisite perception of her position and relations, results in a higher

enjoyment veiled by a more delicate modesty. The changes are rapid and occurring at this peculiar period doubtless fit the individual for the more perfect fulfillment of the duties about to devolve upon her. This function generally commences from thirteen to sixteen years of age and ceases about forty five but is subject to considerable variation from the affects of climate, peculiarity of constitution habits and pursuits of life. By most writers on the subject we find it stated that menstruation commences much earlier in hot climates as in the South and East it is said to appear about the tenth year of age and to disappear about the twenty fifth or thirtieth and in Lapland and other Northern climes they do not menstruate untill twenty or

twenty four and continue until about sixty years of age. The discharge recurs every month that is deducting four or six days for the time of its flow every twenty seven or twenty eight days. Mr Roberton found that out of one hundred women sixty one menstruate every month, twenty eight every three weeks, ten at uncertain intervals and one a healthy woman every fortnight.

Symptoms. The symptoms which precede and accompany the first menstruation are very slight in some cases, well marked in others. There is generally a feeling of lassitude and fatigue after exertion, depression of spirits, a dark shade under the eyes,

headache, pain in the back, weight and aching in the pelvis and down the thighs, with some fever, if the discharge takes place most of the symptoms disappear the remaining symptoms are weakness and pallor of countenance. but the symptoms may pass off two or three times without the appearance of the Catamenia or white discharge only. This may generally be remedied by tonics and improvement in diet. Sometimes the color of the discharge is light at first becoming deeper at each period until it acquires its natural appearance. It is in inconsiderable quantity rarely lasts more than two or three days and at first recurs at irregular periods but

acquires regularity after the fourth or fifth return. During this flow the skin exhales a peculiar odour, the appetite is diminished, and occasionally sympathetic pains are felt in the breasts. The amount of suffering differs in different women, owing to habit and peculiarity of constitution causes. This subject has attracted the attention of the medical profession for many years, much time has been wasted in speculations which after all are nothing but conjectures. We do not know why the katamenia occur at monthly periods, it is one instance of the periodicity which characterizes the functions of the female sexual system, which

lay open for the investigation of the profession. The cause of menstruation has been supposed by some authors to depend upon lunar influence. Pliny thought it was an excretion of some noxious substance. Galen, Simpson, and others thought it to be nothing more than the expulsion of a superfluous quantity of blood. Frederick Hoffman supposed the menstrual flux to be the fruit of mechanical action. He says that women generate more blood than they need in consequence of the slowness of their circulation and the small amount of their perspiration. Hence arises the venous congestions and spasms in the extreme vessels. The blood that is refused admittance into

the vessels that are affected with spasmodic constriction must escape into the womb whose particular construction favours this congestion. And many other theories have been given. But the most plausible one is that of Drs Friend, Power and Vaughan, who say it is caused by the influence the ovaries have over the uterus. There are certain facts which cannot but lead to an admission of a certain influence exerted over menstruation by these organs. It is well known that they participate in the congestion which exists in the uterus at the monthly periods. When the ovaries have both been atrophied or diseased or when one was congenitally absent and the other disorganized. The secretion of the menses has been prevented alto-

gether. Moreover when the uterus is absent but the ovaries present the menstrual molimen and other sexual peculiarities appear. Lastly when the ovaries have been removed as in the case mentioned by Mr Pott menstruation ceases entirely. From these considerations we may conclude that although the uterus be the seat and its lining membrane the agent in the process yet the ovaries furnish the stimulus upon which the function depends. An inquiry into the changes which take place in the organs during menstruation will confirm the conclusion at which we have arrived, and throw some light upon the nature of the stimulus. We have numerous instances cited of young women dying while the menses were upon them and post-mortem examinations revealed

that the ovaries were burst at one place from whence it is supposed an ovum escaped they were also turgid and gorged with blood. It appears that the ovaries contain a number of small Graafian vesicles one of which ripens every month and passes off from the ovary to the uterus and thereby stimulates it to action. There is a number of cases on record which upon examination after death the ovaries have been found to exhibit a number of cicatrix corresponding with the number of menstrual discharges during life. From the above facts we are obliged to conclude that there is a periodical evolution of Graafian vesicles and that this occurs at a menstrual period. The uterus is congested during menstruation, its vessels are extended with blood, its lining membrane

of a deep red studded with bloody points and covered with menstrual fluid. The cervix however participates but slightly in the increased vascularity and its lining membrane is scarcely altered in color. The Fallopian tubes are somewhat more vascular than usual.

Disorders. Under this head we will first consider Amenorrhoea, that is where the menses have never appeared or when having appeared regularly they are obstructed. Menstruation may be absent by the ovaries being wanting or if present they may be diseased or the vesicles may be diseased or absent; congenital malformation may exist, the uterus may be absent or incompletely developed, the canal of the cervix may be closed, the vagina may be absent or an imperforate hymen, when the

defect is ovarian we find no effort at menstruation, on the contrary when the uterus is absent or defective the sexual peculiarities are observed and effort is made to menstruate every month but of course with no discharge. When the passage is merely obstructed the menses may be secreted but remain in the cavity of the uterus or vagina until from over extension the parietes give way. We may have the organs well developed and they perform their function regularly but in multitudes of instances by some accidental cause, such as cold caught during its flow, by wet feet, sudden mental emotion or a bodily shock, pain and disease of any kind, that tend to debilitate the system. During pregnancy and lactation this function is normally repressed and should not be interfered with. Many peculiar

characteristic of it's function is a provision which nature makes in some cases for mitigating the constitutional effects of suppressed menstruation by substituting a similar discharge from some other part. It is recorded to have taken place from the nostrils, eyes, ears, gums, lungs, stomach, anus, ends of the fingers and toes, different parts, from the stump of an amputated limb, from ulcers, and from the surface of the skin generally, the more extensive mucous membranes, are however most frequently the seat of the discharge. It appears to be sometimes blood, in others it has the character of hæmorrhoidal fluid. The repetition of this discharge may occur at the regular period, or it may intermit; and it does not appear that any serious results follows even when delicate organs are the seat of it.

The uterus may resume its function and these discharges cease. The treatment of these disorders is varied according to the causes which produce them as in congenital malformation we are enabled to do but little but when this flow is accidentally suppressed we may restore it by treating the disorder which caused its arrest. The next disorder of this function which we will notice is Dysmenorrhoea or difficult and painful menstruation, this form of abnormal menstruation consists in severe pain in the emission of the discharge which may be profuse, scanty, or about the usual amount; the attack is sometimes confined to one or two periods but frequently last for many years. This disorder may be of a Neuralgic, inflammatory, or mechanical nature, and must be

treated accordingly. Thirdly and lastly, we will speak of Menorrhagia which consists of an increase in the monthly evacuations. Excessive menstruation may occur in various ways the menses may return too frequently or too copiously, or at unusual intervals. Some allowances must also be made for differences of constitution and of climate. The discharge sometimes takes place with a violent gush from the vagina after which it stops for some hours and then recurs, and this alternation may continue during the usual period of menstruation, sometimes on the other hand the discharge goes on regularly and lasts for ten days or even three weeks: or the quantity each time not being excessive it may return every two or three weeks. This morbid flow may be removed by treating the disorder which caused it.

An

Inaugural Dissertation

on

Dysentery

Submitted to the examination of

the Trustees - Regents and

Faculty

of the

University of Maryland

for the degree of

Doctor of Medicine

By

Nicolas G. Ridgely

of Maryland

February 1862.

Dysentery

Syn- Inflammation of the larger intestines, Colitis, Colo-Rectitis, Bloody Flux.

The name of this disease is derived from two Greek words δυς signifying with difficulty and εντερος - an intestine; together meaning a difficulty or disturbance of the functions of the intestines.

This disease is peculiar to no country and instances of it are recorded by authors in almost every part of the habitable world. It may occur in all places, at all times, and at any season of the year, but is generally most prevalent during the months of August, September, and October, in cities and other confined places,

where numbers are exposed to the same remote or exciting causes

It is also frequently an epidemic in fleets and armies, and the great havoc occasioned by it in Washington (although as much concealed as possible) and elsewhere are well known.

"The page of history will be less for the plain in battle than for those who have fallen victims to this calamity."

Whether Dysentery is a contagious disease or not being still a mooted question I do not feel myself at liberty to express an opinion on the subject

I would however define dysentery to be a fever accompanied with frequent mucous and often bloody evacuations

attended with griping pains in the abdominal region, straining at stool and tenesmus - all of which are the direct consequences of an inflammation existing in the mucous membrane lining the Colon and Rectum.

Symptoms of Dysentery.

The symptoms of this disease are quite numerous, they are generally (in dysentery which is uncomplicated with any other disease) griping pains in the abdomen irregular as to both their position and time of occurrence and these are at times accompanied by discharges from the rectum by the which means the patient is generally partially relieved for the time being - to this is then superadded a sense of weight bearing

or other disagreeable sensations experienced in the Rectum, with, simple and frequently recurring desire to evacuate the Rectum of its fæcal contents which generally results in the expulsion of but a very small quantity of slimy mucous.

This symptom of "tenesmus" being gradually on the increase, soon becomes the leading feature of the case; the abdominal pains seem by degrees to concentrate themselves in or about the rectum.

The desire to go to stool is sometimes almost incessant and in many cases, especially among children, produces by means of the pressure, during which

the patient must resort to to relieve himself prolapsus ani, and even then afford only partial relief.

Some authors in writing on this disease make mention of small membrane like appearances which have been sometimes noticed among the faecal matter latter evacuated which moves of a sebaceous nature have also been noticed so closely resembling pus that they have received the name corpora pinguia

Though the evacuations by stool are so frequent still we seldom or never have natural

fœces excreted, and when they do at any time make their appearance, they are discharged in the form of small indurated masses called *scybala*. The passage of these *scybala* may be looked upon as a most favorable symptom, in fact as the beginning of convalescence. *Sponsidentia* and (in general debility) and a retention of urine frequently occur and have the effect of greatly increasing the distress of the patient.

In violent attacks which are about to prove fatal symptoms of mortification in a short time ensue and take the case out of

the hands of the earthly physician and transfer it to those of the heavenly physician. When the bowels became affected with gangrene the patient heretofore restless and in great agony now complains but little of pain or tenesmus, the pulse sinks, delirium and coma gradually supervene and the miserable sufferer closing the journey of life in the arms of relentless Mors

In the disease arrives at its most dangerous culmination a miliary eruption is sometimes observed on the skin; and malignant ulcers make their appearance on different

[illegible] to [illegible] the body. Children [illegible] this stage of the complaint are sometimes attacked by convulsions.

In the disease as [illegible] it sometimes sets in spontaneously, the discharges from the rectum become frequent, and more healthy in their character, and the [illegible] and [illegible] gradually abate.

Dysentery is frequently complicated with other diseases especially fevers of all sorts but of its complications it does not belong to my subject to speak in this essay.

Diagnosis

this part of the study of Medicine has of late years justly been made the subject of deep, earnest and learned investigation. It is this complaint (as also in most others) the hopes of a happy termination of the case is dependent in a great measure on the mode of treatment employed during the first few days of the attack. It is therefore a matter of considerable importance that the physician should be thoroughly acquainted with the disease in its early stage.

Few cases indeed occur in which Dysentery may not be distinguished with ease by the

diligent observer, from any other complaint. There are however two diseases with which it may be confounded viz Cholera Morbus and Diarrhoea.

The necessary discrimination between Dysentery and Diarrhoea is very easy of accomplishment if you take into consideration the following great differences in the symptoms of Diarrhoea. The alvine discharges are generally copious consisting chiefly of natural fæces, and the disease is generally accompanied by little or no pain. On the other hand in Dysentery the natural fæces are

we retained, at least for some time and when evacuated this often in small hard masses. [illegible] being accompanied by considerable fever, severe vomiting and tenesmus.

These last mentioned symptoms do occur in Dantura but no mention is made of them however and their appearance is "like unto specific, [illegible] and [illegible] stem."

Let us now glance at the differences between this disease and Cholera Morbus which are so very obvious to every intelligent observer that it will not [illegible] to

mention one.

In Cholera Morbus instead of the diarrhœa we have a matter of a bilious nature is discharged in considerable quantity both from the stomach and bowels, and the febrile symptoms are of anything like a great intensity

Treatment

Many different courses of treatment and many different remedies have been used in this disease. Observation and common sense teach us how any and method as the disease differs in intensity

The first indication is to reduce the inflammatory action which may be done by the usual methods now in use.

Bleeding is not always necessary and should never be used when the disease is of the adynamic character; it should be resorted to however when there is pain and tenderness of the abdomen in conjunction with febrile action and a vigorous pulse. Bleeding should be moderate and never employed late in the disease.

Cinchona, however

and useful remedies in the early part of this disease and when given at the very inception are almost sure to result in a complete cure, their use is indicated by the following symptoms — pain in the epigastrium frequent but inefficient efforts to vomit accompanied by nausea. The use of this remedies Drill name in the case of this respective values in the administration of the sulphate of Zinc —

Opium and its preparations is considered as the great dependence of the physician in dysentery

The contraindication (and indeed the only one) to its use in this disease

[illegible] presence of fetid [illegible]
[illegible] be removed by the use
of the lancet be for its application
the tissues should be large enough
[illegible] [illegible]

[illegible]

rank cathartics as [illegible] most efficient
agents in the [illegible] of this
[illegible]

One of the chief
indications in dysentery being to
remove from the intestines and
any irritating secretions and [illegible]
[illegible], and [illegible] in
the portal circulation, [illegible]
which effects are accomplished
better and with more ease by the

by the class of remedies there is
another may — Diaphoretics
Mercury and many other
ingredients of the Homeopaths
which have been mentioned in
time and space forbids
I must remind you
to express my unfeigned gratitude
to the Faculty of this University
for their kind and courteous
behaviour towards me during
my connection with the College
three years. So my [illegible] at
[illegible] I may [illegible]
[illegible] later for the [illegible]
of the matter [illegible], hoping that
my examination may prove successful
I am
Yours respectfully
Baltimore [illegible]

An
Inaugural Dissertation
on
Pneumonia,
Submitted to the examination
of the
Provost Regent
and
Faculty of Physic
of the
University of Maryland,
for the
Degree of Doctor of Medicine
by
John B. Robinson
of
Maryland,
A Member of the Class
of
1861 & 2.

Pneumonia.

Pneumonia is a name that is now generally applied to inflammation of the parenchyma of the lung. There are several varieties of this disease. These varieties are founded upon the different portions of the lung or the different constituents of any one part that may be inflamed.

The inflammation may occupy a considerable extent of the lungs continuously, embracing a whole lobe or even a whole lung. This is the most common form of the disease, and the one usually meant when the simple term Pneumonia is employed; it is sometimes called Lobar Pneumonia. Sometimes small portions of the lungs are inflamed; as for example, distinct lobules or parts of lobules with sound

lung intervening. It is then called lobular Pneumonia. Though the inflammation is usually confined to one lung it occasionally involves both; it is then called double Pneumonia. The Pleura is very frequently involved with the substance of the lung, when large portions of it are affected, it is called Pleuro-Pneumonia. The complaint is frequently primary, but it is also frequently a mere accompaniment of other diseases; it is then called secondary. When associated with a low or typhoid condition of the system it is called typhoid Pneumonia. And when with bilious disorders whether depending on simple derangement of the liver or upon a concurrent bilious fever, it is called bilious Pneumonia. The disease may be acute or chronic.

Anatomical Character

Considered in an anatomical point of

view, Pneumonia presents three stages well marked. First, Engorgment or Inflammatory congestion. Second, Hepatization. Third Suppuration. First, dry engorgment; in this degree the lung externally is of a livid or violet hue; it is heavier and more solid than in health. It however crepitates, though much less so than in a sound state, and on pressing it between the fingers we perceive that it is injected with a liquid. It retains the impress of the finger nearly like an oedematous limb and when cut into it exudes copiously a bloody, turbid, tenacious and somewhat frothy serum. It is more compact and heavier but less tenacious than in health. Its cohesion is at the same time diminished, it is more easily torn, more in that respect like the spleen, and accordingly the term splenization of the lung has been given to this stage of the inflammation.

In this state of engorgment the small ramifikations are of a deep red color: the portions most engorged will almost always float on water.

Second Stage or that of Hepatization is characterized by a deep red or reddish brown or greenish red color. But it crepitates no longer under pressure, and its density is so great that it sinks in water. The softening is so great the lung may be readily torn. When cut into the lung bears a striking resemblance to liver, and on this account is said to be hepatized. The cut or torn surface of the lung generally exhibits numberless minute granules close to each other, these are I presume the air vesicles clogged up, thickened and made red by the inflammation as no air is contained in the lung in this stage of the disease. The granular appearance however

is observed. The surface is sometimes quite smooth and uniform especially in advanced life and that of infants, probably in consequence of the obstruction of the cells by pressure of effused matter within them.

The Third is the stage of Purulent Softening or Suppuration. There are two conditions, one of which and infinitely the most common is that denominated by some Gray Hepatization; and the other is Abscess. In the former the lung is compact and dense as in that of Hepatization, but instead of the dark red color it presents externally and within a yellowish and grayish appearance: and when cut exudes a yellowish opaque purulent fluid sometimes tinged with blood: it is much softer too than in the second stage and is more easily torn, and

if pressed between the fingers it is almost wholly resolved into a purulent fluid with only shreds of the solid tissue remaining.
The second condition or that of Abscess is exceedingly rare, but it may sometimes occur and the patient recover.
Gangrene is a very rare result of common Pneumonia though it does sometimes occur, it is almost as uncommon as Abscess: yet it does occur as a consequence of acute inflammation of the pulmonary substance. But in most cases of Gangrene the antecedent or attending inflammation is so slight as to have led to the supposition that it is not the cause of the Gangrene.
The color of the parts which have thus perished under the inflammation is of a dark, dirty or olive greenish brown color. The Pleura is very fre-

-quently but not always inflamed over the hepatized part of the lung. Coagulable lymph is often thrown out forming a false membrane upon its surface and sometimes the two opposite sides adhere while a little turbid serum is found in the pleural cavity. In a great majority of cases the morbid phenomena is confined to one lung, and the right lung is much more frequently affected than the left. In secondary Pneumonia the opposite sides appear to be about equally affected. In relation to the parts of each lung attacked Laennacll states that the lower portion was most frequently the seat of the inflammation, and that when this occupied the whole lung it almost always began in that portion

Symptoms.

The disease as it usually occurs presents the following characterising symptoms. Pain, more or less marked in one of the sides of the chest; dyspnea, viscid and bloody sputa, dull sound and modification of the respiratory murmur. The patient lies on his back; the pulse accelerated but variable in its character; the fever is generally of the inflammatory kind but is occasionally typhoid; sometimes the fever and local symptoms occur without an antecedent chill especially in infants; and sometimes the local precede for a short time the general. Not unfrequently the disease commences with catarrhal symptoms which continue for several days before the signs of Pneumonia become manifest. In Secondary Pneumonia the disease often begins obscurely without

pain, cough or fever unless this has previously existed and is distinguishable only by the hurried respiration and depression of strength and the physical signs. Pneumonia is apt to assume this chronic form when complicated with cerebral disease.

Of the Pain.

It may either precede, accompany or follow the commencement of the fever, it is in the beginning very acute and severe and is much increased by a full inspiration cough or pressure between the ribs. It is generally on the level of or a little below either breast, more rarely it is seated either below the clavicle or entirely at the lower part of the ribs and even in the hypochondria or in fine over all the extent of the thoracic parietes of one side. In some cases it precedes by several days the

other symptoms being then neither accompanied by pain, cough or dyspnea. It simulates a pleurodynea or simple rheumatic pain. The pain is increased by by coughing, by the movements of inspiration, sudden change of position, inter-costal pressure and percussion. It is principally exasperated by lying on the side in which it exists.

Of the Dyspnea.

The dyspnea in Pneumonia is generally in the direct ratio of the extent of the inflammation of its seat and of its intensity in each of the points which it occupies. To this rule however many exceptions occur owing to some peculiar idiosyncrasy. There are some individuals a very small portion of whose lungs is in the first stage of inflammation and whose respiration is nevertheless much embarrassed

There are others on the contrary in whom a much more extensive inflammation of the lung in the second or third stage exists, and yet the dyspnea is comparatively slight. Inflammation of the upper lobe is said to be attended with more of it than in the lower. Violent dyspnea with short and quick respiration and purple color of the face is indicative of great danger. After most of the symptoms of inflammation of the lung have ceased the breathing still remains embarrassed and this is particularly observed on the slightest effort, as long as this residue of dyspnea exists the resolution of the inflammation is not complete.

Of the Sputa

At the commencement of the disease there is frequently no expectoration

or it is simply catarrhal being composed of mucus of mederate tenacity; but as a small crepitation becomes marked the sputa assumes its characteristic form; that is, it becomes composed of mucus intimately united and combined with blood, not merely streaks of blood as in bronchitis, neither is it pure blood as in hemoptysis. But the blood and mucus are amalgamated and in proportion to the quantity of the former the sputa becomes of a yellow or an iron red or rusty color. At the same time it becomes glutinous and tenacious. It adheres together so as to form one transparent homogeneous mass. So long as this mass flows readily along the sides of the vessel when it is tilted, so long we have reason to hope that the inflammation has not passed the first stage. But the

sputa often acquires an extraordinary degree of viscidity so as no longer to separate itself from the side of the vessel when it is inverted. You cannot even shake it out. The should under these circumstances have cause to apprehend that the second stage is advancing. When the sputa becomes thus rusty and very viscid the chest usually returns a duller sound, vesicular breathing is abolished and bronchial respiration takes its place. It is then at its Acme and the expectoration remains for some time stationary. At length, if the inflammation recedes the sputa becomes less tenacious, less red or yellowish and more like the sputa of catarrh. But if it goes on increasing the rust colored sputa may remain to the end. The physical signs are of the highest importance in the diagnosis of this

disease. The disease is often very obscure and before the discovery of Auscultation and Precussion many cases ran their whole course without being suspected. Cough and pain in the chest are sometimes wanting and fever with headache and hurried respiration common too with numerous other diseases, are the only observable phenomena. Even the symptom of the viscid and rusty sputa often fails us for the patient sometimes swallows it or there is none secreted. In the first stage or that of congestion the most important sign is that of crepitus-roucus, it is perceptible from the very invasion of the inflammation. At this time it conveys the notion of bubbles and seems hardly to possess the quality of humidity. The sound of respiration is still heard distinctly with the crepitus-roucus

and precussion affords the natural resonance. The crepitation is more distinctly audible, the nearer the disease is to the surface of the lung. It is generally confined to the beginning of inspiration, it soon extends throughout that movement. When the disease has reached the second stage we no longer perceive the crepitant rouchus or respiratory sound and the absence of these phenomena is frequently the only sign we have of hepatization having taken place. Broncophony exists in certain cases particularly if the inflammation is seated in the roots of the lungs or in the upper lobes; there is also a strong vocal resonance. But quite as important as either of the other signs is that afforded by percussion in this stage. Instead of the slight diminution of clear-

-ness observed in the first stage we now have decided dullness and sometimes even perfect flatness in the parts most consolidated.
In the third stage the diseased lung becomes infiltrated with a purulent matter which is generally consistent at first but soon acquires the liquid-ity of common pus. In this stage a peculiar muco-crepitant rouchus is heard at first in some points, then in the whole of the affected part.

Of Abscess.

In the infancy of pathological anatomy, the formation of an abscess in the lung, as the result of acute or chronic inflammation was considered a very common thing. The common error been to mistake tubercular vomica or interlobular pleuratic effusion for the abscess of the lung.

When abscesses, however, do form in a hepatized lung, the passage of air through the liquid will be indicated by the gurgling or cavernous rouchus and when the cavity has been emptied of the pus by expectoration, pectoriloquy and the cavernous respiration will be added to this stage

Pneumonia may also terminate in Gangrene, but this is nearly as rare as abscess. The distinctive phisical sign of gangrene is the fetid odor emitted from the diseased part. In respiration and cough the expectorated matter is also extremely fetid. This change is usually attended by a collapse of the ratiens and great prostration of the vital powers.

Diagnosis.

The diseases with which pneumonia is most liable to be confounded is

Bronchitis, Pulmonary Emphysema, Pleurisy and certain stages of Phthisis. It is in cases of bronchitis extending to the minute ramifications of the bronchial tubes that the resemblance is presented to pneumonia; but in the former affection the sensations are more those of soreness than acute pain and are usually seated in the anterior and upper part of the chest. The expectoration though sometimes streaked with blood never has the extreme viscidity and rusty character; and when it once begins is much more copious; no crepitant rale is heard, but instead of this the dry mucous rale. There is no bronchial respiration, but the two diseases sometimes exists together. Then it is very difficult to distinguish between them.

Prognosis.

The prognosis is always serious although physicians are not agreed as to the proportional mortality; some rating it at one in three, others at one in twenty, one in fifty, and one in sixty cases. A very frequent pulse as one hundred and twenty and a hurried respiration is a bad sign, so is an obstructed cough with scanty or difficult expectoration. The character of the expectoration will guide us materially in our prognosis. Thus in simple pneumonia the viscidity and rusty tinge of the sputa are in exact proportion to the intensity of the inflammation. Dirty or watery brown sputa and those containing pus import great danger in as much as they indicate the probable supervention of the third stage. The sudden suppression of expectoration is generally an unfavorable sign

A moderate perspirable skin is the most favorable state. A copious deposit of the Urine may generally be viewed as a favorable sign. Delirium is generally considered to be a symptom of great danger; equally fearful is a comatose or lethargic state.

Causes.

Vicissitudes of weather are among the most frequent causes. Sudden exposure to cold when the body is perspiring is apt to produce it. Direct violence, acrid or poisonous inhalations, the excessive use of the voice and the suppression of habitual discharges are frequent causes. It sometimes follows accidental injuries or surgical operations. Various diseases are apt to be accompanied with pneumonia and are thought to favor its production. The one in which it most frequently occurs is bronchitis; but it

is also frequent in measles, hooping-cough and sometimes in scarlet fever and small-pox. Phthisis can scarcely run its course without it. Of the predisposing causes, cold may be reckoned among the most efficient. It is especially apt to occur towards the end of winter and spring. It is most apt to occur between the ages of twenty and thirty five. It is more frequent in men than women.

Treatment.

Pneumonia is one of those diseases whose treatment is at once simple and efficacious provided it be adapted at an early period, but not if the disease be allowed to run into the second and third stages. The great instruments to be employed in the treatment of this disease are blood letting, tartarized antimony and mercury. Of these the blood letting is the chief. The abstraction of blood

will be effectual in proportion as it is early during the first stage. In a vigorous patient with a strong pulse and before hepatization has been fully established from sixteen to thirty ounces may be taken at the first operation. There is some reason to hope in this stage that we may arrest the progress of the disease by decided measures. Should the symptoms have in no degree abated we may bleed again at an interval of from twelve to twenty four hours, and the operation may be repeated again and again should the pulse not have been reduced nor the inflammatory symptoms decidedly checked. It often gives very speedy relief both to the pain and dyspnea. Sometimes the pain does not cease at once but goes off a few hours afterwards. The Tartar Emetic, I believe to be best a-

-dapted to the first degree of inflamma-
tion, the mercurial to the second. The
tartar emetic may be given in doses of
one third of a grain dissolved in water
with a few drops of syrup of poppies or
laudanum every hour. After two or
three doses the quantity may be doubled
and after two or three more it may
be increased to one, two or three grains
every hour. If the medicine acts fa-
vorably it will relieve the dyspnea with
-out causing more than very slight vom-
iting or purging. In those cases where
tartar emetic is inadmissable or inef-
ficient the mercurial treatment must
be had recourse to. The object of giving
it is to produce its specific effect upon
the system and it is expedient to do this
speedily as possible. Small doses of calomel
repeated at short intervals as one or two
grains every two hours or three grains

every three hours combined with opium to prevent it from running off by the bowels. If the bowels are irritated by the calomel the blue pill may be substituted for it with advantage and if the external use of mercury is contra-indicated or if it appears slow in occasioning its specific effect mercurial ointment may be rubbed in. Aperients should be occasionally given so as to keep the bowels open but too much purging is always injurious. Local depletion is also highly important when the acute stage has passed. Blisters may be applied to the chest after the acute stage has passed. Should the case linger the blister may sometimes be repeated with advantage. In the declining stage of the disease expectorants are often useful. The syrup of squill and senega may be combined with a little tartar emetic or one of the salts of

morphia and given in such doses as the stomach will bear without being nauseated. If the pulse as sometimes happens remains frequent the tincture of digitalis may be added to the other ingredients. Tonics, especially those of peruvian bark are often very useful. In the pneumonia of old persons, and debilitated and cachectic subjects especially towards the termination of the disease, when after the suppurative stage the fever passes off and resolution goes on very slowly, tonics must be resorted to.

Regimen.

In the acute stage of this disease the patient ought to be debarred of every kind of aliment except the mucilaginous matters which enter into the composition of his drink. As soon, however, as the inflammatory

action has subsided he must be allowed some light food, to be increased as the appetite and strength return.

An
Inaugural Dissertation
on
Typhoid Fever
submitted to the examination
of the
Provost, Regents & Faculty
of Physic
of
the University of Maryland
for the
Degree of Doctor of Medicine
by
Walter B. Rowe
of Maryland

A.D MDCCCLXII.

The two principal states in which Man is most usually found are those of health & disease. The state of health, though the most desirable & most usually sought after, has, nevertheless its various conditions, which conditions may even approach the very verge of disease. Often the approximation is so nice that the most acute therapeutist cannot tell where health has ceased and disease begun. The forms of Disease are exceedingly more various and more complicated and more varied. Its most striking form & most frequently met with is that designated by Nosologists as Febris (Fever): so called from the general and striking phenomenon the heat in fever, which has given origin to the name by which the affection has been known in most languages.

Fever is a constituent of many diseases. It is necessary to call attention to two distinct applications of the term fever. It is used in a general sense to signify a peculiar morbid condition of the system, common to many diseases; in a special sense, to designate these diseases individually or collectively.

Fever may be sympathetic & Idiopathic. Having thus premised a few observation in a general manner for the better understanding of the matter before me, I shall now proceed to the consideration of the subject of my choice, namely, Typhoid Fever. I hope that the following remarks may meet with the leniency with which a Tiro in any art or Science is usually treated.

It is a common febrile affection, presenting a considerable diversity of symptoms, yet having in general a certain recognizable character, and probably constituting in all its forms, one and the same disease. It is the ordinary endemic fever of continental Europe, and of those portions of our own country, in which the miasmatic fevers do not prevail, and is more or less mingled with the latter within their own special limits. Indeed, the probability is that it belongs to the whole human family, and is to be found in all inhabited regions. Since the breaking out of the civil war it has prevailed to an alarming extent in those places where the armies were encamped. It was very common in the city of Baltimore during last Summer.

The nomenclature of this disease is unsettled and perplexing. By some writers it is denominated Continued or common Continued fever. Without wishing to discuss this question of name calling we will call the disease Typhoid fever as Louis has done, who was the first to determine its anatomical character.

Symptoms, Course &c.

The disease sometimes begins abruptly by a chill, followed by the usual symptoms of fever; but it more frequently comes on insidiously, and increases gradually, so that it is often impossible to fix the precise point of commencement.

For several days, sometimes even for a week, the patient is uncomfortable; and complains of slight head-ache-numbness or pain in his limbs; the skin is heated somewhat, the face

flushed; the appetite is impaired, though not quite extinguished; and these symptoms continue, with a slowly increasing intensity, but with a tendency to daily remissions, for several days before the patient feels himself sufficiently ill to take to his bed. There is also not infrequently, during this inchoative stage, some looseness of bowels, amounting often to diarrhoea; and when this is not the case, there is generally an extraordinary susceptibility to the action of cathartic medicine, which operates in much smaller doses than usual, or, if given in the full dose, produces more than the usual effect.

The disease, being now fairly under way, exhibits the ordinary phenomenon of fever, such as frequency of pulse, heat & dryness of skin, flushed face, pain in the head, complete loss of appetite, thirst, and a great general weakness. These symptoms continue with

little other change than a gradual increase, for several days.

Finally, if the case is to end unfavorably, the pulse gives away, and becomes either excessively frequent and fluttering, or slow or scarcely perceptible; the extremities become cold & clammy, or the whole surface is bathed in a clammy sweat; the abdomen is often enormously distended; hiccough sometimes occurs; the countenance assumes the hippocratic aspect; and life is quietly and almost insensibly extinguished. Sometimes, however, when the fatal issue takes place at an earlier period, death is preceded by apparently painful struggles or convulsions.

When a favourable termination is to take place, the tongue becomes moist, and begins to clean itself gradually at the tips and edges; the pulse lessens in frequency, and acquires greater fullness; the skin relaxes, becoming cooler and less dry

the stupor or delirium subsides; the patient pays more attention to things around him, and exhibits more solicitude for himself; the abdominal distension subsides, and some inclination for food returns; or at least less aversion for it is displayed. Convalescence, under these circumstances, speedily takes place.

In other instances, especially in severe & more protracted cases, the course is somewhat different. The tongue throws off its fur in flakes. If the tongue, when thus cleased, remain moist, convalescence may be pretty confidently expected, though it is always tedious.

The patient generally loses his hair, which, however grows again; and the cuticle of the palms of the hand and soles of the feet is apt to desquamate.

There is occasionly a fatal termination of this disease, thus, the patient is suddenly seized, without any premonition of danger, perhaps in the midst of convalescence, with violent

pains in the abdomen, which is exceed=
ingly tender to the touch. Sometimes
there is no pain; but only tenderness.
Rigors, an exceedingly frequent and
contracted pulse, obstinate vomiting, and
constipation, are also frequent symptoms.
The cause of these symptoms is a perforation
of the intestine, and the escape of its liquid
contents, producing inflammation of the
peritoneum. It is more frequently the
mild than the aggravated cases, that are
liable to this serious accident. It occurs
at variable periods in the progress of the complaint;
having been noticed as early as the twelfth
day, and as late as the fortieth. Fatal
peritonitis has also been known to occur without
perforation.

The duration of this disease is uncertain,
but usually protracted. Death may take
place on the sixth or seventh day; so so early
a termination of the disease is rare. Generally
it occurs in the course of the second or

or third week, and sometimes not till the end of six weeks or later. The period of convalescence is equally variable. It sometimes begins on the eighth or ninth day, but very rarely before the third week. Even the very mildest cases run on to the fourteenth or fifteenth day; those of a severer character seldom become convalescent before the end of the third or fourth week; and not unfrequently we witness recoveries even after the sixth week. The average duration of cases may be stated at from twenty to thirty days. The disease seldom lasts longer than sixty days, though it has no fixed limits.

Certain symptoms occurring in the course of the disease are so important, in reference to diagnosis or prognosis as we will briefly mention them.

First; Diarrhoea, according to Louis, is an almost uniform symptom, but in this country it is not unfrequently wanting. The diarrhoea sometimes precedes the fever, but more frequently commences during the

first twenty-four hours after the attack), & is occasionally postponed to a later period (2). The stools may be only one or two daily, or more frequent, up to ten, twelve or more). They are generally yellowish or brownish, and apparently healthy, except in consistence. This is one of the remarkable features of disease. It is generally attended with pains in the abdomen, which, though not usually severe, are often troublesome. When wanting they may be elicited by pressure. They may be present also when there is no diarrhoea.

Tympanites, in a greater or less degree, is an almost constant attendant of enteric fever. It does not begin with the disease; coming on usually about the seventh day, though sometimes as early as the third. At first it is not very obvious, percussion is necessary to the certain detection of the symptom. It increases as the disease advances, and soon becomes obvious to the eye.

In general it bears some proportion to the severity of the disease. Sometimes it cause great inconvenience to the patient. This morbid collection of air is chiefly, in the colon; the small intestines being comparatively little effected.

The rose-coloured eruption is one of the most characteristic phenomena of this fever. This consists of small red-spots, usually roundish, and about a line in diameter, though sometimes larger, often slightly prominent, and disappearing under pressure with the finger, to return upon the removal of the pressure. They generally make their appearance first about the seventh or seventeenth day, not unfrequently later, sometimes not until near the close. They occur in general first and most numerously on the abdomen, extending afterwards to the breast, and occasionly to the extremities, even to the back and face, though very rare in the last mentioned position. Their number varies greatly, sometimes not exceeding two or three, sometimes being almost countless. They appear in

successive crops, each lasting three or four days, and then gradually fading; and the whole period of the eruption varies from three to fifteen days.

These spots must not be confounded with petechiæ, which sometimes appear in this disease, but are not peculiar to it.

Sudamina generally appear later than the red-spots, they are also less constant and less characteristic, occuring in other febrile affections.

Cough and bronchitic rales are also very common. The cough is either dry, or attended with a slight mucous expectoration, with very little or no soreness or sense of oppression in the chest. The dry sonorous and sibilant rales may be heard more or less extensively over the thorax, and are much greater in proportion to the amount of oppression or dyspnoea than in ordinary catarrhal affections. They thus afford an important diagnostic sign. They are not, however present in all cases. Sometimes they begin with the disease; but more frequently not until the lapse of about a week. Occasionly they

give place to a crepitant or sub-crepitant rale, indicating the occurence of inflammation in the parenchyma of the lungs.

Hemorrhage is not an infrequent symptom. In the early stage it takes place from the nostrils and is highly characteristic. Hemorrhage from the bowels occasionly takes place in the advanced stages.

The nervous symptoms are peculiarly prominent. Headache is seldom wanting throughout the disease; it usually continues for a week, after which it gives away to stupor or delirium, and does not return when these are disappeared.

Dullness or Hebetude of mind is a quite common symptom, giving an air of dejection to the countenance.

Hardness of hearing is another highly characteristic symptom. It is not unfrequently preceded or accompanied with tinnitus aurium.

A tendency to sloughing of the skin is much more striking in the advanced than the early stages.

anatomical characters: There are certain anatomical changes which are especially characteristic, and which are so seldom wanting that they may be considered as almost essential. Such is the affection of the elliptical patches of those peculiar minute bodies in the ileum denominated the glands of Peyer. This is quite as characteristic of the disease in question as the peculiar pustular eruption is of smallpox. At first the patches are observed to be thickened, and their surface elevated one, two, or even three lines above that of the surrounding mucous membrane. The largest are from two to three inches long, and from half an inch to more than an inch broad; the longest being in the direction of the intestine. Their edges are in general clearly defined, smooth, and regular, but sometimes irregular and ragged. Some of them are dark-red, some pale, and others of an intermediate hue.

There are two varieties of them, distinguished by the name of hard and soft. Sometimes the same elliptical patch exhibits both forms, one in one part of it, the other in another; and often some of both varieties are found in the same case. The patches vary in number from one to thirty, averaging perhaps ten to twelve. They appear upon the surface of the intestine opposite to the attachment of the mesentery.

The hard patches may undergo resolution or ulceration; the soft always ulcerate. In some instances, the floor of the ulcer is the muscular coat; in others, in consequence of the destruction of that tissue, it is the peritoneal coat; and this is occasionally penetrated, so as to form a communication with the cavity of the peritoneum. The perforation is produced either by the progress of ulceration, by mortification of the uncovered peritoneal membrane, or by its rupture from force applied within the bowel.

The ulcers usually have a tendency to heal.

Having thus considered one of many and

principal anatomical changes we omit others and proceed to the consideration of the Causes of the malady.

ses. Nothing precisely is known of its cause. The circumstances of its production are very diversified. It is certainly often generated in situations where human beings are crowded together, with insufficient or unwholesome food, and a confined and vitiated air. Hence, it appears to originate especially in prisons, badly ventilated hospitals, large cities, and camps, and ships. It is a well known fact, that young persons, coming from the country into large cities to reside, are very apt to be attacked with it. It has been thought by many to be contagious, if contagious at all it must be so only feebly, and under peculiar circumstances. Certain individuals are much more predisposed to it than others. Age has a great influence over this predisposition. It is comparatively rare beyond thirty years of

age, much more so beyond forty, and very rare indeed beyond fifty. The disease does occur also in very early life.

It is generally admitted not to occur twice in the same person:

It may occur at any season, but is probably most common in the autumn and winter.

Fatigue, exposure to sun, vicissitudes of weather, and mental disturbance, appear sometimes to have acted as exciting causes, as were seen in the Cases of Federal soldiers admitted into the Baltimore Infirmary, before the military hospitals were established in the city.

Marsh miasma seems also a producing cause and complicating the Typhoid with remittent & bilious complaints.

Diagnosis —. It may be very certain, if we have present some of the principal symptoms I have enumerated above; It is not to be supposed that all these symptoms are necessarily present in every Case. One of the diseases with which Typhoid is most commonly Confounded is the remittent or

bilious fever. It must not be confounded with Typhus: The practioner should generally avoid a hasty decision at the commencement of the disease. Many fevers closely resemble each other in the beginning; and for the first four or five days, it is often impossible to decide with certainty upon its character.

Prognosis.

In this country, Typhoid fever, though a serious, is yet not a fatal disease. It is, however, one of those complaints which put on very different degrees of violence, under different circumstances. From statistical reports, it is certain that, on some occasions, it is exceedingly fatal. It has proved one of the most deadly scourages to the Federal army of invasion and occupation. In hospitals it may be expected to be more so than in private practice. There can be no doubt that, while certain of its epidemics are very mild, others are very fatal; and that the grade of its severity as an endemic differs greatly in different years.

I

Treatment -

Often diarrhoea exists from the beginning or if not an unusual susceptibility to the influence of cathartic medicine, it is not proper or advisable, as in most other fevers, to begin the treatment with active purging. Yet the employment of the mildest purgatives are called for to remove any irritating digesta from the intestines. Afterwards throughout the whole disease, the state of the bowels should be attended to. When the stomach is irritable or cathartics worry the patient, the same object may be effected by Enemata.

The next indication is to obviate febrile symptoms. General blood-letting is not generally called for in a vast majority of cases, and might be positively injurious to very many. But if there is congestion or inflammation of the brain or other vital organ is obvious, involving life in danger then it may be cautiously used. If blood is to be drawn in some cases local depletion is the safest and often the best.

It is important to husband the patient's strength especially as the natural tendency of the complaint is often to debility.

Refrigerant diaphoretics should be employed from the commencement. The preparations of potash afford some of the best: the various neutral mixtures and effervescing draughts are beneficial.

Cold ablutions are very useful in abating the heat of surface. In cases attended with much debility, diluted spirit may be substituted. The patient should be allowed cold drinks, and, if he wish it, a little ice in his mouth, when not greatly prostrate.

Certain local affections often require attention. Severe headache may be treated by leeches, and applications of cold water or ice in bladders. For pains in the abdomen, with more or less flatulent distension, small local bleedings, warm fomentation or emollient cataplasms and rubefacients or blisters may be used. Should pain and tenderness be found to exist in any part of

the abdomen, whether at the epigastrium, in the right-iliac region, or elsewhere, a few ounces of blood should be taken by leeches or cupping from the tender spot. Large mush poultices, covering the whole abdomen, and steadily renewed day by day, are very useful. Sometimes it may be useful and advisable to mix a little mustard or other rubefacient with them. In obstinate cases of abdominal tenderness, it may be proper to apply a blister. The diarrhœa may generally be allowed to take its course; but should it become exhausting, it should be checked by small doses of opium and ipecacuanha, to which acetate of lead, kino, extract of rhatany, or pure tannic acid may be added, if necessary. Nervous symptoms, such as restlessness, general uneasiness, agitation, wakefulness, and slight subsultus, may often be quieted by sweet spirit of nitre, Hoffmann's anodyne, or camphor water; and opiates may be used for the same purpose when not contraindicated.

In the more favorable cases, no other treatment

then the above will be required. But very often, after the 9th day or so, a condition of things occurs which must be met by other measures. There is now a deficiency of secretion; the energy of the vital actions has abated. Under these circumstances, no remedy is so effective as mercury, given so as very slightly to affect the gums. It is indicated by the general failure of the secretions also as an antiphlogistic remedy. One of the great dangers is now disorganization from inflammation of some important organ. We may use minute doses of the Blue mass, given at short intervals, as, for examples, a grain every two hours, until the mouth is affected. We may combined if allowed by the cases small doses of Opium & Ipecac or small doses of Calomel, as the 1/4 - or 1/6 gr. The mercurial should be continued until the gums are slightly touched, and then either diminished gradually, or omitted. Under its influence the tongue not unfrequently becomes moist, the skin relaxed, and all the other

symptoms ameliorated; and the patient recovers without further treatment. Severe ptyalism should be scrupulously avoided.

Should the symptoms not yield; especially should the tongue become very dry, and the abdominal distension remain undiminished the Oil of Turpentine will prove an excellent remedy.

The debility, attendant upon the advanced stage is very often such as to render the use of Tonics & stimulants necessary. The period at which it becomes necessary to have recourse to these medicines varies greatly in different cases.

It is very important to attend to various local affections, or incidental complications in the advanced stages.

Attention to the diet is all important. In the early stages it should be very light, consisting chiefly of liquid substances. At a more advanced period, in the second week, for example, when the symptoms of debility begin to show themselves, it will be necessary to support the strength by a more nutritious

diet, which, however should not be stimulating.

Throughout the whole case, the greatest attention should be paid to cleanliness and ventilation.

The period of convalescence often requires a close watchfulness on the part of the physician. The patient should be especially guarded against any imprudence in diet and excessive indulgence of his appetite. Premature and fatiguing exertion should be avoided; and the patient should be brought gradually back to his accustomed modes of life, without any strain upon his mental or physical powers.

End

Walter B. Rowe
Maryland
1842.

An
Inaugural Dissertation
On
Dyspepsia,
Submitted to the Examination
of the
Provost, Regents and Faculty of Physic
of the
University of Maryland
for the
Degree of Doctor of Medicine
by
Charles A. Shure
of Maryland

Dyspepsia

There is no complaint found in the extensive category of diseases, which presents more interesting matter for study than the Subject of this Dissertation. — It is invested with more than ordinary interest, because of its frequent occurrence, because of its baffling character, and, because of its extreme annoyance to the Sufferer.

There are but few of the human family who pass through this transitory life, enjoying a total exemption from it. Many have its long and disagreeable companionship without any interval of relief.

Since the great and rapid

advancement of the medical science, we are induced to look hopefully to the bringing to light of agents by which simple affections, as regards time, should occasion but slight alarm to the patient.

Not one simple disease, with which I am conversant, has received less benefit from the therapeutics than this, and the term unmanageable in association with it, is not an obsolete expression. It is almost as difficult to decide the true nature of malaria as to determine with precision the nature and causes of dyspepsia, on account of the varied phenomena which it presents.

Dr. Wood pronounces the name Dyspepsia, a misnomer, upon the ground that it does not signify any particular pathological state, but that it merely refers to a result, which may flow from different and even opposite conditions of the stomach.

Hence the confusion from the inapplicability of the term. It is said that there is no distinct gastric disorder to warrant the use of the term. Many able writers, however, refer all those affections, generally pronounced, dyspepsia, to gastric irritation or inflammation.

Diminution of the power of the stomach or depression of its actions forms the plain pathological state deserving to hold a place among diseases.

To this state Dr. Wood proposes to restrict the name of dyspepsia. The phenomena of Dyspepsia are of a mixed character; but upon close observation, a discrimination will diagnose its forms from analogous affections.

Symptoms & Course.

This affection does not generally fall under the notice of the practitioner, until it has assumed its most troublesome form. The symptoms, then presented, differ in different

cases. The leading and most prominent is one of vague uneasiness in the Epigastrium, which is more than pain; it induces the patient to change its character by stroking the affected part. This is said to be diffused over this region and frequently reaches to the hypochondrium, to the chest, to the shoulder, and down the arms. The uneasiness is greatest when the stomach is empty, and is followed after eating by a sense of weight, fullness, and distension.
Apart from this peculiar feeling, there is frequently a sensation about the region of the heart, a burning pain arising from vascular

derangement of the stomach, sometimes there are spasmodic and gastralgic pains; a sense of distension from flatulence and other causes. Often in connection with debility of the stomach there is an augmentation of sensibility from deranged innervation, in which case, substances swallowed may occasion acute pain, and epigastrium evinces great tenderness on pressure.

The appetite is more or less impaired and is sometimes wanting. In other cases it is ravenous or a perverted one. "Ward says there is seldom a healthy feeling of hunger, but in

place of this, the patient experiences a feeling of hollowness or depression at the epigastrium, when the stomach is empty, which leads him to wish for food.
Thirst is frequently felt.
There are eructations of wind, with regurgitation of food or chyme or sour disagreeable liquid. These symptoms are applicable to the stomach.
Other symptoms hold there residence elsewhere but are either consequent upon those of the stomach, or generated by the same causes, operating in an extensive direction.
Among these are such disordered sensations, as headache, heaviness and giddiness of the head, musca

volitantes, and perverted vision frequently resulting, tinnitus aurium, and other unnatural sounds; irregular pains between the shoulders, in the back and other parts of the body; a feeling of coldness between the shoulders, stricture about the throat and irritation in the lungs and fauces, causing efforts to clear the throat, which at last becomes a chronic affection.

The mind participates in the suffering of the body, as evinced by a general uneasiness, low-ness of spirits, indifference to the affairs of life, anxiety and apprehensiveness. The patient is apt to imagine that he is labouring under consumption or organic disease of the heart

or some other incurable malady.

Dyspnoea, palpitation of the heart, and a short dry cough are not unfrequent symptoms which tend to contribute to add to his melancholy feelings. The patient does not generally sleep well, is disturbed by disagreeable dreams or night-mare, and leaves his bed poorly refreshed in body and depressed in mind. In some cases sleep affords the only interval of ease, and in others, there is even a morbid inclination to sleep. The Patient is often hawking with a discharge of mucus from the fauces. The tongue is furred and often there is an unpleasant taste in the mouth. Unless, in cases complicated with chronic enteritis, the bowels

are generally constipated. The secretion of bile is often diminished imparting a clay-color to the stools; sometimes it is perverted, giving a dark or black color to the passage and in more cases it is too abundant, causing vomiting of bile or bilious diarrhœa.

The pulse, in many cases, differs but little from the natural beat; in others, it is too frequent or too slow, or irregular; in some, it is apt to be disturbed by the slightest cause.

The Urine is variously affected; sometimes it is scanty and bright colored, depositing a lateritious sediment; sometimes, limpid and almost colorless.

The surface is dry and and of an irregular temperature.

The symptoms above are by no means all present in every case, there are scarcely two cases in which a striking difference may not be observed.

At first the disease exhibits itself in slight paroxysms with intervals of almost entire exemption. These attacks, however, are little noticed and gradually increases in frequency until at length the patient is seldom without some evidence of disorder.

General Habits.

The patient should observe regularity and moderation in all his habits. His sleeping apartments should be well-ventilated. He should have relaxation from study, also from business. These

are all essential to the cure of dyspepsia. All these effects can be accomplished in no other way better than by travelling, which unites the advantage of exercise, pure air, relaxation from care and an agreeable excitement of the mind, and if directed to some suitable watering place, affords the additional advantage of efficient medicinal agents.

Medical Treatment.

Two principal indications are presented for the use of medicine are; first.—to keep the bowels regularly open; secondly,—to make a moderate but durable stimulant impression upon the stomach.

The treatment of dyspepsia generally resolves itself into such

of its particular symptoms or consequences ~~as~~ are most prominent; Inactivity of the bowels is to be appeased by proper aperients properly administered.

The debilitated stomach ought to be strengthened by mild tonics, antacids, and stimulants. The mental symptoms. The head symptoms often yield to the same treatment; and as often require local depletion, or diffusible stimulants, such as Carb. Ammonia, Æther, &c. It has been recommended to commence the treatment with Emetic doses of Ipecacuhana but, this treatment is only called for when the stomach experiences

inconvenience from offending matter and this removes constipation. The only way that I can reach this disease is to refer to Dr. Wood; he recommends Magnesia when the stomach contains Acidity. Tonics should be used with caution; if largely employed and long and steadily persevered in, there is danger that they may wear out the excitability of the stomach. The drugs are too numerous to mention that are to be applied in this disagreeable disease.

Exercise.

The great object of exercise is to bring about excitement so that each organ may have its due

supply of blood and nervous influences. The most beneficial exercise is riding on horse-back, gymnastic exercises are also useful, but should be careful not to carry it too far. The household duties afford abundant exercise.

When the patient is placed in such a position as not to allow him to command the opportunity of riding, he may substitute the plan of Halsted. He recommends bending the body, so as to relax the abdominal muscles, so that the hands may be pressed with their palms upwards beneath the stomach and by repeated impulse with the fingers

keeping up a regular movement on that organ; ~~that~~ but too frequent pressing causes inflamation of the Stomach. It sometimes affords relief in flatulence

Diet.

The diet must be of a good and substantial quality and must be free from acid; potatoes either roasted or boiled in a manner that they contain no water; good fresh milk; the flesh of wild animals are also beneficial.

These and a great many other articals of animal food are beneficial, such as Oysters raw, or slightly roasted. In relation to drink, the best is cold water.

Liquors should not be drunk at any time as they are injurious. Some stomachs bear good ale in moderate quantities. Numerous instances have been cured by giving patients food that under ordinary circumstances would be undigested, Experience, however, is a better guide than precepts.

Dedicated.

To

Prof. Saml Chew.

of the University of Maryland

by

Charles W. Shure.

of Maryland

A. D. 1862.

Thesis
Subject
Labor
By
Edw B Simpson

Labor

Labor, or Midwifery proper is a subject, upon which a great deal has been written and said. And one which the Student should know requires a very large amount of obstetrical knowledge, a great deal of prudence and delicacy as well as a knowledge of human nature. If he be deficient in any of these, he will not likely attain to any considerable eminence in the practice of it. No woman in my opinion can be placed in a labor, compelling her to have the aid of an accoucheur without some sense of a mortified delicacy. We ought justly appreciate the finer feelings of her sex. If this be true, we at once see the necessity, of the

accoucheur, being a man of prudence, and delicacy, as well as sympathy and tact. A female of the most ordinary sensibility is not half so likely to be abashed, at the sacrifice of feeling she has to undergo if she be treated by accoucheur as an object of respect, than if approached by him with the utmost indifference. If these precautions are properly adhered to by the practitioner, it will not only command the respect of the patient, and her friends but of the Medical profession. There are other considerations that the accoucheur should strictly adhere to, he should never divulge the secrets of the lying-in-chamber. he should at all times remain silent, for

frequently, there are matters connected with the lying-in chamber, that not only involve the reputation, but even the honor of persons, and the safety of most important interests; these are called professional secrets, and not told to us in confidence as friends, but as surgeon accoucheur. With these considerations in view, let it be our constant aim, to give a reputation to ourselves, and honor to the medical profession. Let us now consider what labor is, Labor is the process by which the contents of the gravid womb are expelled. In the first place it will be well to know what the real cause of labor is, I believe the real cause of the onset of a labor is not generally known, Dr Meig

says it is quite probable, that it is to be found only in the inability of the womb to admit of further distention. Some have supposed it to depend upon the size of the child, which in my own opinion has something to do with it; although if the child be large or small, it is most likely to be born two hundred and eighty days after the last catamenial flow of the mother, yet cases occur in which this period does not take place until a considerable greater length of time, I do not believe that the development of the child is the cause of labor neccessarialy, for the womb does frequently begin its contractile efforts previous to the expiration of two hundred and eighty days and then again not till several

days after. Baudelocque thus explains it, that there is an antagonization between the fibres of the cervix or neck, and those of the fundus and body, that in the first stages of pregnancy, the fibres of the fundus and body yield to; while those of the cervix resist the distending force of the feotus, until about the seventh month, at which time, the fibres of the neck begin to yield, and continue to do so until the ninth month at which time they completely antagonize each other. At length the development of the womb going on, and those of the fundus becoming the more powerful, those of the cervix, and os become developed and so completely opened as to allow the Ovum to escape

We pass on to notice the subsidence

of the womb, it is nothing more than a descent of the womb or its apex into the Excavation of the pelvis, It may be brought on by the contractions of the womb itself, but generally by the action of the abdominal muscles and of the diaphragm, This is generally considered a sign of the near approach of labor, These contractions of the womb, are called labor pains, and vary a good deal in their length of time, being much longer in the begining of a labor than in its advanced stages, lasting generally from fifteen to thirty seconds and even more Dr Forbes of Philadelphia relates a case in which several of the pains lasted for a minute and a half with the most intense agony, in fact he says they were most to

intolerable to [illegible]
between the contractions in the
beginning of a labor, are generally
from thirty to forty minutes
as labor advances, [illegible]
to five and [illegible]
in average duration of a [illegible]
according to the statistics [illegible]
obstetricians is about three and
a half or four hours. Some last
much longer, other [illegible]
the pain of a labor pain is [illegible]
times very excruciating. [illegible]
first the head of the [illegible]
the cervix, and [illegible]
pushes out the perineum and labia
are said to be the most [illegible]
the pain connected with labor
is owing to the [illegible]
bearing organs. There is another kind
of pain found in labor called a [illegible]

pain, which is generally indicated by the patient grasping and squeezing the hand of the accoucheur or attendant, this is a sure sign of a grinding pain, After labor has progressed for a time, and the presenting part carried down into the excavation of the pelvis, a tenesmus or bearing-down is produced and the patient bears down with all the forces of the abdominal muscles, so as to expell all that exists in that cavity, This bearing-down does not exist in the commencement of a labor, but when the os is nearly or quite dilated, this tenesmus becomes as it were almost involuntary, and the patient cannot very frequently resist it, even when requested by the accoucheur himself.
The muscles employed to fulfill this office of bearing-down are

the rectus abdominis, external and internal obliqui and the transversalis. Now when nature has carried on the work sufficiently, the bag of waters are seen protruding from the opening os, they are then ruptured, the head of the child is brought down into the bottom of the pelvis, and thus expelled. Few patients escape being affected constitutionally after a labor has been completed (in fact I might say none, but that are to some degree) This is not only owing to her great mental excitement but to her agony and great muscular exertions, which accelerate her pulse, her respiration becomes more hurried, her skin becomes heated, and fever would be intolerable, if it was not for the excessive diaphoresis which

generally takes place, but this can be obviated, by using cooling drinks, keeping the room properly ventilated, lightening the bed clothes, gentle enemas, and lastly by blood letting. All assurances of the happy results of a labor, and its after treatment, is oftimes very benificial to the patient, being careful, that they are of such a character as can be relied upon by the physician himself. There are many outward signs of labor we may place a good deal of reliance upon the patients own history of the case, her manner and expression, we should make our examination per, vaginam and see by the touch the patients true condition, yet there are other signs which should not be overlooked such as nausea, vomiting, tremors

accompanied with a chill, pain in the back and hypogastric region &c By an observance of all of these rules and signs we can always tell when a labor has begun In making our examinations per vaginam, the utmost delicacy should be observed, being careful ~~to~~ not to make any greater exposure of the patient, that possibly can be helped, It would be well to have a third person in the room at the time, Now having the patient properly adjusted in bed, and all the requisites, necessary for the examination You at once proceed to perform to perform the duty assigned to you, When a pain comes on, you take the index finger of right hand, having it previously anointed with oil, pass it into the vagina

at the same time pressing the left hand firmly against the sacrum of the patient, you carry the finger along the posterior wall of the vagina towards its upper extremity, and the os is readily felt, care being taken not to rupture the bag of waters, for such a result would likely be attended with serious consequences, If the os is in the middle of the pelvis, we have a favorable position If it becomes necessary to make a second examination, this should not be done until the bag of waters are replaced, and the liquor amnii discharged, At this examination we can very conclusively make our prognosis of the labor, We frequently meet with pains at or towards the end of a labor which are called false pains

they are a contraction of the muscles of the abdomen, these pains are frequently caused by a Rheumatic condition of the uterus, we can discriminate them by the touch, when ever met with, we should obviate them by bleeding the patient, keeping her warm, giving a dovers powder at night, bathing the abdomen at night, and keeping the bowels open with gentle aperients, there are other causes for false pains other than the one I have just mentioned, but all pertaining to the same result. All labors are divided into three seperate stages, first, from the first contraction to the dilitation of the os; second from the dilitation of the os, to the expulsion of the child, third from the expulsion of the child, to the expulsion of the placenta or secundines,

[illegible] already [illegible]
[illegible] not [illegible] to be [illegible]
[illegible] is [illegible]
[illegible] [illegible]
[illegible] separation of the placenta
[illegible] detached [illegible]
[illegible] followed by a [illegible]
hage of blood, [illegible]
could prevent [illegible]
[illegible] it has been known to be
[illegible] such a character as to produce
a deleterious effect to the moth-
er [illegible] of the blood that comes off,
[illegible] from the placental surface
or that portion of the uterus to
[illegible] the placenta adhered
[illegible] placenta [illegible]
[illegible] [illegible]
[illegible], the placental surface of
[illegible] must necessarily be
[illegible] diminution before the con-

[illegible] ement of a labor, but [illegible]
[illegible] contracts, so as to be
[illegible] than a common [illegible]
[illegible]
[illegible] be diminished, which
[illegible]
[illegible] the hemorrhage to be
[illegible] in a great measure.
[illegible] the whole of a labor, or
[illegible]
[illegible] passive or inactive
[illegible] not be otherwise when
[illegible] remember, that the child in
[illegible]
[illegible] (which does not
[illegible] the [illegible]
[illegible] enough. If the child be dead,
[illegible] are less resisting.

[illegible]

[illegible] are spent, in the [illegible] of this dead mass [illegible] a lateral labor the lower por[illegible] of the bag of waters is pushed [illegible] discharged [illegible] the [illegible] makes any pressure [illegible] upwards, [illegible] of the spinal column [illegible] the spinal column becomes arched, the lordosis now being depressed, and the chin brought to the breast of the [illegible] upwards as the presenting part

[illegible]

[illegible] to vertex, [illegible]

[illegible] sounding ones of the

[illegible] to have any difficulty,

[illegible] rather than any one

of the [illegible] lives, and so of others

[illegible] has been a great deal of

speculation among obstetricians

[illegible] regards to presentations,

and positions, [illegible] of

one number, and some anot

[illegible]
[illegible] ification of Prof. Mallon
[illegible] and [illegible], Dr. [illegible]
[illegible]
[illegible]
[illegible] vertex right [illegible]
front, [illegible] right
[illegible] forehead from the first
the vertex is to the [illegible]
the forehead to the right sacroiliac
articulation, the second
[illegible] is to the [illegible]
forehead to the left sacroiliac
articulation, third where the vertex
is between the pubis and the fore-
head in front of the pubis, and
the fourth where the vertex is to
the right sacroiliac articulation
and the forehead toward the
left iliac fossa, the fifth and
the vertex is to the left a[illegible]

[illegible]
[illegible] with where the vertex is at
[illegible] promontory and the forehead
[illegible] symphysis pubis. The first
[illegible]
[illegible] second the next, and so on
[illegible] natural order. I think
[illegible] labor [illegible]
[illegible], but twenty thousand
[illegible] fifteen thousand were
of this point [illegible]
[illegible] exactly, but it is [illegible]
[illegible], but with [illegible]
[illegible] to be considered in
[illegible] I will [illegible]
already [illegible] of the [illegible]
[illegible] the rotation of the [illegible]
[illegible] another movement of
[illegible] head called the extension.
[illegible] escape of the [illegible]
[illegible] exactly [illegible]

[illegible] habits, these are [illegible]
[illegible] points in the head
[illegible] a labor. Suppose we take
[illegible] of the first position. The head
[illegible] by the approach of the
[illegible]
[illegible] down into the
[illegible] of the ischia tends to
[illegible] it; towards the pubic arch,
[illegible] by this rotatory [illegible]
it is [illegible] down into the hol-
low of the sacrum, [illegible]
[illegible], the vertex is brought
out from under the arch of the
pubis, until the occiput is
[illegible] of the arch.
The head now rolls out from
the orifice of the vagina, and
the extension is [illegible]

[illegible]

[illegible] pelvis, it was directed

[illegible] commencement of the labor

[illegible]

[illegible]

[illegible] acetabulum & the left to the

left sacro iliac junction, the right

[illegible]

[illegible]

[illegible] left side of the

thorax [illegible] deep [illegible]

[illegible] of the pelvis, the left

[illegible] [illegible] the pelvis

[illegible] and is born, the right

[illegible] [illegible] an off[illegible]

to disengage itself in a [illegible]

[illegible] [illegible] by a [illegible] effort

the pa[illegible] of [illegible] the body

[illegible] child is [illegible] [illegible] to [illegible]

minutes after the birth of the

[illegible] ment to expell the placenta,
[illegible] pulsion there is al
[illegible] ght hemorrhage, the
[illegible] usually supposed
[illegible] disappearance of this discharge
[illegible] indicate
[illegible] with a natural labor

Inaugural Dissertation
on
Typhoid Fever

Submitted to the Committee
of the
Medical Faculty of Physic
of the
University of Maryland
in the
Degree of Doctor of Medicine
by
Francis James Smith
of Maryland.

[illegible]

[illegible] nomenclature
[illegible] this disease. I deem it
[illegible] sufficient for me to speak,
[illegible] it has been commented
[illegible] some of our most
[illegible] Authors and each
[illegible]
[illegible] such as the following
[illegible] Bilious, Nervous, Fever,
[illegible] Continued, Intermittent
[illegible] Enteric, but as this
[illegible] Typhoid is the one
[illegible] most used in our works.
[illegible] of our Publications
[illegible]
[illegible] I will assume it in
[illegible] Discourse.

Typhoid is a common
[illegible] of [illegible]
[illegible] diversity of opinions,

[illegible] having a certain characteristic
[illegible] which it may be known
[illegible] as but
[illegible] and [illegible] [illegible].
[illegible] is a common [illegible] [illegible]
[illegible] in the United States
in such parts as Miasmatic
and Bilious fevers do
not prevail, although
it may be found in all
[illegible].—
The Symptoms of this fever
may be divided into
three different stages [illegible]
[illegible] —
Typhoid sometimes comes on
abruptly [illegible] [illegible]
[illegible] [illegible] [illegible]
[illegible] [illegible] and
gradually increasing [illegible]
it is almost impossible to
ascertain the precise [illegible]

the patient first complains
of dullness, weariness of limbs
and pains, slight headache
and a sensation of cold
to the tongue which is coated
with a whitish fur, the
pulse is quick, the
skin hot, the tongue
becomes dry, the
urine scanty and high
colored. The patient feels
himself too weak to
take to his bed. —
Illustration. During the stage
there is some chilliness
with pain in the joints
but the disease has not
yet reached the chilliness
causes not to be taken
as an indication of
inflammation.

During this stage there is
[illegible] looseness of the
bowels frequently amounting
to diarrhœa, and if this
would be cured it would be
[illegible] very susceptible to the
effect of calomel [illegible]
much smaller doses when compared
to the adult. The diar-
rhœa exhibits the patient
[illegible] frequently [illegible]
[illegible] pain, [illegible]
complete [illegible]
[illegible]
[illegible] stand [illegible]
[illegible] cutting [illegible]
pain does not now exceed
sixty or one hundred [illegible]
[illegible] [illegible]
[illegible] cases [illegible]

and [illegible]
[illegible] the face is more [illegible]
[illegible] but than in
[illegible] other [illegible] of the
[illegible] about the complexion.
[illegible] a dusky hue, with
[illegible]. Headache [illegible]
[illegible] and is the chief
cause of complaints. The
patient complains of pains
in the back, [illegible]
feel as if bruised.—
Bleeding from the nose
is a common [illegible]
though [illegible]
[illegible] as a [illegible]. These
complaints continue for
several days with little
or no change until a
profuse [illegible] takes place.
[illegible] more frequent and

[illegible] so strong, the tongue
[illegible] coated through with
a [illegible] fur, [illegible]
[illegible] more dry and clammy
[illegible] at the [illegible] the [illegible]
is irritable, disturbed
[illegible] [illegible] in the [illegible]
a cough now sets in, dry
husky, or accompanied
[illegible] [illegible] expectoration
the [illegible] [illegible]
and [illegible] [illegible]
the course the disease
[illegible] [illegible] [illegible]
[illegible] [illegible] [illegible]
[illegible] [illegible] [illegible]
complete prostration —
2d Week — Other symptoms
now begin, the tongue
now [illegible] dry and of
a brownish cast, swollen,
difficult and painful.

Albumen, breath distended,
and if the surface be
examined red spots are
found resembling
blisters. Epithelium of bronchi
vesicles are also found on
close examination of
the sect and various
parts of the body. The
symptoms now
assume a more decided
character. Vertigo now
takes the place of headache,
coming in the form with
loss of consciousness. The
tongue is now protruded
with very great difficulty,
and he resents the effort.—
Typhus condition now
presents itself, the tongue
is covered with a brownish,

dark and poor, black pustules
[illegible] on the back and
thighs, the pulse at this
point [illegible] and
small, the skin hot in
one [illegible] white [illegible]
in others, an unpleasant
odour arises from the
body, [illegible]
[illegible] the patient at
this stage is quite
[illegible], lies on his back
[illegible] slightly [illegible]
to the feel of the bed,
picks at the bed clothes
at imaginary objects,
mutters half inaudibly
and [illegible], [illegible]
attempts to arise in bed
under a delirium,—
inclining evacuations

[illegible] slight hemorage
[illegible] opposed
[illegible] Diet
[illegible] is a
constant attendant of
typhoid, it occurs about
the fourth or sixth
day, as the disease [illegible]
it increases it is [illegible]
[illegible] through the
patient and the air is
[illegible] confined to the Colon.—
Most colored eruptions
are one of the most
[illegible] of this disease, they
consist of small red spots
rose dist, slightly [illegible]
[illegible] or [illegible] —

[illegible] removal. At the
[illegible]
[illegible]
[illegible]
[illegible]
[illegible] They are few seen
[illegible] different parts of the
[illegible] regards their [illegible]
various, as there are but
a few in some cases whilst
in others they [illegible]
[illegible] generally disappear in
[illegible]
[illegible] formation, and are
[illegible]
cases. Cut and blanch
[illegible]
complaint, caught by
[illegible]

The pulse is frequent in the
[illegible] though sometimes
[illegible] in the last stages
[illegible] the [illegible]
frequent in the [illegible]
[illegible] moderate [illegible]
not exceeding [illegible]
though in the later
stage it is [illegible]
not requiring treatment.
Hemorrage from the bowels
occurs in this [illegible] which
is very important as it
[illegible] discriminates
[illegible] is regarded as an
[illegible] [illegible]
[illegible] strength [illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible] in the countenance.

[illegible] blank and

[illegible]icted, as the disease

[illegible] the [illegible]

and amounts to [illegible]

[illegible]

[illegible] this stage [illegible]lirium

[illegible] in, which is usually

mild, but [illegible]

[illegible] times it becomes [illegible]

[illegible] furious, so that

it becomes necessary

[illegible] force to retain the

patient in bed. In the

last stages it becomes low

[illegible] with [illegible] [illegible]

[illegible] half formed words
[illegible] sentences, but even in
this stage it sometimes becomes
difficult [illegible]
[illegible] important symptom,
[illegible] also [illegible]
[illegible] from blisters or [illegible]
[illegible] in the extremities
there is the [illegible] gurgling,
on account of the distention
of the abdomen.

If the disease is to terminate
[illegible] by, the [illegible]
[illegible] fluttering, and
[illegible] to be felt, the
[illegible] hands become cool
the whole surface [illegible]
in a clammy sweat, the

[illegible] tolerance [illegible] cast
[illegible] ceases sometimes
[illegible] slaughter, [illegible]
[illegible] with.—
However the [illegible]
[illegible] generally, the
false [illegible]
the [illegible]
[illegible] becomes [illegible]
[illegible] ceases the [illegible]
[illegible] the other [illegible]
[illegible] the [illegible]
[illegible]
[illegible] to his
[illegible] got [illegible]—
Practice and Complications.
The symptoms which [illegible]

[illegible] cases, though there are [illegible] possibilities which have not been [illegible] some of the principal of which I will mention. — In some cases the tongue remained [illegible] clean, and only slightly [illegible] very little [illegible] of the tubercles [illegible] few of the red spots on the abdomen, [illegible] very little disturbance of the nervous system [illegible] — [illegible] the time [illegible] frequently [illegible] a few days the [illegible] with [illegible] in a case in the Baltimore Infirmary the

patient came in with Typhoid fever and was attacked with Typhoid, was treated by Dr Chew and terminated favorably as I related above — In other cases again diarrhoea is the most obnoxious symptom, accompanied frequency of pulse thirst and weak, some slight cerebral depression, the tongue slightly coated, no headache of any importance, the diarrhoea continues for a week or fortnight longer and if not arrested it assumes a typhoid form, the tongue becomes dry, pulse frequent, delirium sets in as well as other dangerous symptoms. — Other cases arise in which

gastric and hepatic disorders
[illegible]
symptoms, such as vomiting
[illegible] of the stomach &c
[illegible] brain or pons is invariably
[illegible]
[illegible] to the head. The
[illegible] in others is the
[illegible] symptom from
[illegible] feeble and
[illegible] pulse, sudden
[illegible], [illegible]
and great weakness of the
body. Mercurial [illegible]
inflammation being one
of the characteristics
[illegible]
[illegible] in various parts
of the body. [illegible]
[illegible]

[illegible] Leger and
[illegible]
[illegible]
[illegible] in size and colour,
[illegible]
[illegible] an intermediate
[illegible] hard and others
[illegible]
[illegible] contains a yellowish
bitter [illegible]
[illegible]
[illegible]
[illegible] as they very
[illegible]
[illegible]
[illegible]
[illegible]
The Mesenteric [illegible]
[illegible]
[illegible] alternate as frequently stated.

[illegible] the Circulatory
the Cellular the [illegible]
[illegible] Nervous, Food and
Respiratory organs are
observed to be more or
less affected in different
cases.

Causes.

As regards the [illegible]
of this disease [illegible]
[illegible] is [illegible]. Where
persons are crowded together,
and residing in [illegible]
houses, [illegible]
[illegible] are said to be the most
[illegible] to [illegible] disease.
Many believe it to be
contagious, but with [illegible]
Chew & Many others &
think it [illegible]
[illegible] the fact that it [illegible]

[illegible] cases without communication from [illegible] different families in [illegible] not affected [illegible] disease. Certain persons are more subject to the disease than others it seldom attacks persons under the age of forty. [illegible] it most common [illegible] though it occurs at all periods of life. Cerebral Hyperæmia [illegible] perhaps to other causes from unusual conditions act as exciting causes.— Nature. This disease was supposed to [illegible] Fever, but there being no

inflammation of the stomach
and the symptoms being
[illegible] different from
those of Cholera [illegible]
[illegible] the
affected as fast
as accelerated by tonics
and as there is no connection
between the Intestinal
affection and the symptoms
of Typhoid Fever [illegible]
as, the rose coloured
motions, slight tension
inflammation &c. But with
regard to the true nature
of the disease it has not
been fully ascertained,
it also bears a close resemblance
to Exanthematous fever.

Diagnosis —

The most prominent symptoms

of this fever, is the diarrhea
at the beginning, the [illegible]
and its situation [illegible]
of attack, [illegible] of the
countenance, [illegible]
of the fever [illegible]
of the tongue, [illegible]
coloured [illegible], the
abdomen, [illegible]
delirium [illegible] signs
of the [illegible] —
The continuation of the
disease [illegible] but [illegible]
fever and is [illegible]
as a diagnostic sign. This
disease is generally confounded
with the remittent fever,
though it may be distinguished
from this affection by the
regular intermittent [illegible]
of the [illegible], [illegible] duration —

and the absence of the symptoms
of [illegible], pleuro, lymphenitis,
and coloured eruptions. The
[illegible] to distinguish this from is
syphilis, it may be [illegible]
[illegible] to be [illegible] terms
[illegible] and confined to the
one and not to the other.
[illegible] gradually and
is of [illegible] duration,
instead of [illegible]
the susceptibility to
action of cathartics this
[illegible] and, I may
[illegible] always attended
with constipation, the
fecal discharges are more
dark and more offensive.
[illegible]

occurs in Typhus. Chills are
by no means so common
as in typhoid, and rarely
the eruptions differ from
those in typhoid, in Typhus
they commence earlier
are not elevated and are
by no regularly round, dark
red and do not disappear
upon pressure, rash at
and instead of being
confined to the abdomen
and chest are found on
the extremities and almost
all parts of the body.
The abdomen is often hot
and free from distention
which is never the case
in Typhoid. The Cerebral
characters are different
the disease of the spinal

and the Use of [illegible]
are found affected
in Typhus, Typhoid
or Enteric or [illegible]
countries without any cause.
The contagiousness of the
Typhus never occurs in
isolated cases, it has
absent from places where
it prevailed, and seems
is always contagious.—
Prognosis.— Typhoid
though a very serious
complaint is not a very
fatal, it is a fever
which is attended with
different degrees of
violence under different
circumstances, but
upon the whole
taken it is favourable.

Treatment — Owing to the diarrhoea at the commencement of this disease, it would not be advisable to use the cathartics, though the bowels should be eased so as to obviate the injury caused by the matter coming in contact with the lining membrane. Sulphate of Magnesia or Castor oil in small doses, if there is much irritation. Castor oil is preferable, if there is much pain with the diarrhoea to a dose of laudanum may be given with the oil. The state of the bowels should demand our especial attention.

Opium no cathartics
should be used, but the
bowels should be regulated
by an enema. If the bowels
are not freely evacuated daily, Castor
oil, Epsom salts, milky
powders of Magnesia
at a dose, Rhubarb in
latter stage of Typhus
cases. Should the
stomach be irritable or
cathartics irritate the
bowels an enema may
be administered, or Castor
oil should be mixed with
it. When distention of the
abdomen is persistent
Oil of Turpentine may be
added. The bowels must
being evacuated the most

important effect is that it [illegible] the pulse [illegible] and much determination of blood to the head. Blood may be taken from the arm, in many cases however this may is not necessary or even injurious, as it is important to husband the patient's strength as other here is [illegible] debility. The principal use of bleeding is to prevent the [illegible] Local bleeding may be had recourse to in any stage when there is inflammation or congestion of the organs, unless debility.

[illegible] commencement

[illegible] Cloth of [illegible]

[illegible] ought, whenever the skin

is hot, dry, and the pulse

not very feeble, this may

be combined with Tartar

[illegible] Other [illegible]

combined with [illegible]

[illegible] The bowels is

[illegible] it should be combine

[illegible] small doses of laudanum
[illegible] Magnesia Sulphas [illegible]
[illegible] may be given
[illegible] two hours. Cold
applications [illegible]
[illegible] the head [illegible]
the legs, arms and [illegible]
[illegible] be bathed [illegible]
[illegible] cold water. When
[illegible] is [illegible]
diluted Spirits may be
[illegible] For water, cold [illegible]
[illegible] ice [illegible]
[illegible]
Sick Headache should
be treated by cold [illegible]
[illegible] ice applied [illegible]
[illegible] by heat applied [illegible]
back of the neck. For pains
[illegible] of the [illegible]
[illegible] forehead [illegible]

[illegible] become too exhausting,
[illegible] doses of Opium
[illegible] cocainum to
[illegible] be added Acetate
[illegible] Lead, Kino, Tanic Acid
[illegible] deemed advisable, —
[illegible]
[illegible]
[illegible]
[illegible]
In the [illegible] of [illegible]
[illegible] treatment will
be found [illegible]
[illegible] the second with a
[illegible] state of [illegible]
[illegible] which must
be treated by the [illegible]

The tongue and skin is more
dry, the urine scanty, frequent
frequent and weak, delirium
[illegible]
tinted, pale coloured
[illegible] VC, Mercury
should now be had
recourse to until its effect
on the system are visible
which may be known by
the gums becoming slightly
affected which [illegible]
[illegible] by [illegible]
of the secretions, this is
used as an antiphlogistic
[illegible] I just touch
on the disorganization of
important organs [illegible]
after [illegible] heavy [illegible]
best agent for [illegible]
[illegible] General Blood [illegible]

[illegible] possible, a few oz of
blood may be taken from
[illegible]
[illegible] blood
[illegible] stimulants
[illegible] in small doses, a gr
[illegible] may be used if the [illegible]
[illegible] repeated every two or three
[illegible] until the pulse
begins to be affected.
Small doses of opium
may be added when the
irritability of the stomach
[illegible]
[illegible] but [illegible]
[illegible] the state of the bowels [illegible]
under the use of stimulants
the tongue becomes moist
the skin relaxes and all
the symptoms decrease
the patient sometimes recovers

[illegible] any other treatment.

[illegible]

[illegible] dry, the abdomen

[illegible]

[illegible]

[illegible] in the advanced stage when

the pulse weak and tongue

[illegible] Among the symptoms

[illegible] mentioned in the latter

[illegible]

[illegible] strikes, after this if the

[illegible] gains moist convalescence

[illegible] expected to

[illegible] frequently [illegible] after this

[illegible] becomes quite dry at the same

[illegible] [illegible]
distinguish [illegible]
head. The Oil of [illegible]
is a valuable [illegible]
should be [illegible]
[illegible] give to twenty drops
every hour or two and is
best administered in the
form of an emulsion with
gum Acacia, if it disturb
the bowels a few drops
of laudanum may be added.
The tongue becomes more
moist and [illegible]
with a [illegible] distention
[illegible]
slowly recovers, as the disease
decreases the oil must be
diminished but not [illegible].
Owing to the debility in the

[illegible] of this disease,
it is necessary to use
stimulants, The periods at
which they should be used
[illegible] differ according to
very feeble constitutions or
where the patient is exposed
to debilitating influences, [illegible]
may be used in the early [illegible]
of the disease, but more [illegible]
after the second or third week.
The state of the pulse [illegible]
and the evidence of Typhus
symptoms must be our guide —
When the pulse is slow, feeble,
[illegible] could [illegible]
under the [illegible]
to use and the happiest
effects are sometimes witnessed
from their use. [illegible]
[illegible], the pulse is very frequent, [illegible]

[illegible] stimulants. [illegible]
[illegible] increase [illegible]
[illegible] instead of moderating
delirium and fluxion, increase
it they should be discontinued
[illegible] The Infusion of
Serpentaria or Spts of Nit
Ether if [illegible]
[illegible] may now be used.
The Sulphate of Quinine
is the best of Tonics and may
be used with [illegible]
in conjunction with Sp. [illegible]
The Sulphate with the
Oil of Turpentine, has been
highly spoken of [illegible]
[illegible] doses often repeated, but

[illegible] it increases the fever
[illegible] but the stomach it
[illegible] [illegible]
Wine and Carbonate may be
[illegible] [illegible] [illegible]
be given in doses of [illegible] [illegible]
[illegible] drains every hour or
[illegible] and is best administered in
[illegible] tion. Sulphuric Ether
[illegible]
[illegible] Opium [illegible]
in the last stage [illegible]
[illegible] [illegible]
[illegible] [illegible]
diarrhoea, when the [illegible]
[illegible] [illegible]
[illegible] not diseased it will
be found very [illegible]
and may be given freely it
acts as a stimulant in the
dose of half a grain or [illegible]

[illegible]
[illegible]
the [illegible] to
[illegible] surface to may be used
hot Oil of Turpentine, by
[illegible] in a spandy may
be [illegible] upon the surface,
[illegible] particularly to
[illegible]
[illegible] the [illegible] and arms, flyblisters
to inside of the thighs [illegible]
[illegible] to produce a rubifacient
effect. The temperature of the
surface must be raised by
hot bricks. In cases
of obstinate delirium or coma
[illegible] head may be shaved
[illegible] blister applied [illegible]
[illegible] of Mush, Mustard
and Camphor. In the
[illegible] of [illegible]

with opium may be used.
Cystitis should be treated
by mucilaginous applications
& the use of hydrate of potash.
The bladder from paralysis
and fractures may be
by placing patients
pillows under the pelvis
bathing them with liquor
If there is retention of
urine draw it off with the
catheter. The diet should
be nourishing & easily digested
in the early part it should
be light as solution of gum
Arabic, rice water, weak
jelly, molasses water,
vegetable jellies mixed with
water, juice of grapes, oranges
lemons &c &c. In the stage
of paralysis debility & exces-

itself [illegible] the stage
by tapioca, sago, [illegible]
[illegible] farina [illegible]
[illegible] water [illegible] [illegible]
wine a cup of tea
with dry toast bread
or water crackers [illegible]
both these are [illegible]
of them may be [illegible]
morning and evening
after this stage has
still advanced, milk
may be used a table
spoonfull [illegible]
times a day, [illegible]
[illegible] stage [illegible]
should be more nutritious
and stimulating [illegible]
or jellies may be used
[illegible] beat up with wine
with [illegible] and toast.

Purgation and cleansing of the system demand great attention. During the period of convalescence the bowels should be carefully regulated by a daily laxative. Sweats at night treated by mineral acids and single tablets, when the pulse is frequent and the patient feels as if the sufferer should be used. The diet should be chiefly liquid and easily digested. The patient during convalescence should guard against the excesses of his appetite, and avoid following exercise.—

An Inaugural Dissertation

on

Infantile Laryngo-tracheitis.

Respectfully submitted, to the examination
of the
Provost, Regents and Faculty of Physic,
of the
University of Maryland,
for the
Degree of Doctor of Medicine,

by

Henri M. Hanson.

Infantile Laryngo-tracheitis.

In the world everywhere, innumerable contrasts and antagonisms are exhibited. Everything is rigidly conditioned upon the co-existence of antagonistic elements. Thus take motion. Whence comes it? Only from the counter action of unequal opposing forces. Even a rest in nature necessarily implies antagonizing agencies-for it means their Equilibrium. So it is with life. Every movement of it is won in the very teeth of opposing chemical and mechanical forces. There is a tendency in every atom of the organic structure to fall shapeless to the earth obedient to the law of gravitation. There is a tendency also in every atom to rebel against its present alliences and enter into new chemical combinations. These tendencies have not only to be ballanced but overmastered by the vital organic force which bears the whole along and

gives continual nourishment. It is here between these nicely adjusted counter-tendencies - Growth - and Decay - that the Creator has located the process of healthy life or growth. Both these forces are essential - Yet either, alone would be fatal. Let them move on in the proper relations - harmoniously - and health will be the happy result. The vital organic force is ever striving to maintain this condition; but how often and sadly it fails. But a glimpse at humanity is needed to disclose this. Everywhere we behold Life and Death struggling together; the battle is raging ever. Deformity steals close upon the heels of Grace. Disease pursues health, as a shadow, at every turn. Innumerable are its internal and external influences. The human structure inherits or acquires them. The locality the atmosphere and the climate develope or contribute them. These conditions are constantly tending to destroy the

proper order of the functions of our bodies.
These influences not only tend but often succeed.
They are ever tugging at the excellence of health—
often dragging it; to the corrupt condition of disease
Growth and decay loose their proper relations and
a morbid action gains the mastery.
Inflammation shows this proper healthy relation
destroyed. It is a morbid action depending upon
internal and external causes. The healthy—proper
condition of the constituent elements of the blood
are destroyed—And this unbalanced condition reveals
itself in an outbreak in some structure or part of
the human organism.
Croup is an inflammation of the larynx and
trachea. It is a simple inflammation—but
has some peculiarities as occurring in children.
The whole respiratory mucous membrane evinces
signs of irritation. Spasmodic contraction of the
muscles of the larynx—involving the muscular

fibers of the trachea occurs convulsively closing the chink of the glottis and thus denying the blood the oxygen it needs. Hence this spasm is often a fearful condition of the disease - and its constant repetition must add greatly to the bad condition of the blood. In the course of the disease - an exudation of fibrin from the blood, takes place upon the mucous coat - and the organization of this exudation constitutes the last condition of the disease.

The course of the disease is divided into three stages: first, Catarrhal or Congestive; Second, Inflammatory or Spasmodic; third, Membranous. But any division is arbitrary for Congestion and Exudation too - exist in the middle stage.

The appearance of the Catarrhal Stage is noticed after the child has been exposed to a humid atmosphere. The eyes look watery and sneezing may often occur. A dry cough is generally present and its existence points to the larynx as the source of

the irritation. This condition of the patient may last for several days or only a few hours, in accordance with the rapidity of advancement. Sometimes however they are unnoticed. As evening advances and the child becomes fatigued by its play through the day he becomes feverish and restless. The skin is warm and pulse quick. He cries for drink and the voice generally sounds hoarse - while that croupy cough may begin to appear but generally it does not until later. The febrile disturbance may be very slight but again quite intense - These symptoms generally exhibit a remittent character when the disease progresses slowly - diminishing towards morning and increasing as evening advances - The Catarrhal stage may last two or three days - but generally the second stage advances close upon the beginning of the febrile disturbance. The intensity of the symptoms increase. The child may be in a feverish sleep when it is suddenly aroused by the spasmodic contrac-

tion of the muscles of the larynx - producing the most distressing dyspnoea. It is from the occurrence of the first attack of dyspnoea that the second stage is dated -

The child is found suddenly choking - or more properly struggling for breath. The voice is hoarse and the cough rings out with that peculiar sound which must be heard - it cannot be described. Words never described a sound. I have heard the cat when sick and coughing - make a sound very much like the cough of croup - The inspiration of the child during the spasm is long and gasping - the air is so sweet - the expiration is hurried - as if eager for the next breath. The face is red or purple and burning hot. The hands go to the throat as if to tear something from it, and the neck is sometimes swollen and painful if you touch it. The eyes of the patient turn pleadingly upon you for relief - and the whole appearance of the patient is

that of great distress for want of air.
After the subsidence of the first paroxysm the child is not greatly prostrated - or the animation which his freedom from distress produces, disguises what few signs of exhaustion may be present. The fever abates and the respiration becomes natural. The paroxysms occur most generally at night and during the day there is generally and absence of the spasm and a decline of the fever - The spasms may be numerous or few the first night - but as the disease advances they generally occur at shorter intervals - both day and night - But again the spasmodic action of the muscles is not violently marked throughout the whole disease. The fever will not run markedly high nor will the distress seem eminent - The inflammatory process however insidiously advances - The cough directs the attention to the throat - which if inspected reveals the tonsils and fauces swollen and red with a vicid looking

fluid covering them - while the tongue is seen coated white or yellow. But whether the advance of the disease be quiet or boisterous, the absence of all marks of improvement indicate much danger from the organization of fibrin which is being formed. The membranous stage is marked from the time when the active character of the inflammation seems to have subsided - but yet the voice grows less distinct the cough less sonorous and evidences of failing strength begin to appear. The fever and all the inflammatory symptoms abate. The pulse grows weak but accelerated. If the child coughs shreds of the false membrane are sometimes ejected. There is no remission now in the disease. The child tosses about in great distress. The voice losing its tone sinks to a whisper or is absent - and the respiration grows hissing and broken. The face and lips become pale or livid and broken. The eyes are sunken and the muscles of the neck play

convulsively. The extremities become cold while clammy sweats cover the body. Dyspnoea becomes prominent. Agonizing suffocation frightful to behold increases, and at last the child yields life in the most furious struggles for air. But again in other cases not only this stage but the whole course of the disease, as before remarked, exhibits a passive character. In this stage especially the vital force is greatly subdued. The child passes gradually into a state of lethargy - and thus life passes away.
This discription of Croup is meagre enough. Its diversities are many which are presented by the various shades of plethoric or anaemic constitutions, that to appreciate them great carefulness and refinement of perception is required. Time and study can alone enable the student to acquire such.
At the beginning of the disease when the fever is of a remittent character - it may be mistaken for infantile remittent fever, but the advance of the

disease quickly dispels such an idea.
In inflammatory fever - the peculiar cough. the croupsons and the change and sometimes extinction of the voice are the evidences of the disease. It is readily distinguished from Spasmodic Croup by the absence of fever - of all inflammatory symptoms. The disease must always subsides or is subdued by treatment, without its advancing to the last stage. Sometimes, though seldom. the disease passes to the full and generally fatal stage of organization of the effused fibrin. The disease lasts generally about five days, but the time varies greatly from this point. The character of the treatment - the situation and constitution of the patient are modifying influences of much power.
The patient may die from asphyxia produced by the length of the spasm or from the false membrane blocking up the larynx - trachea and sometimes even the bronchi - or from complete

Exhaustion of the vital produced by the disease assisted perhaps by the treatment sometimes, especially when Antimony is employed. Bronchitis or pneumonia sometimes become complicated with the disease giving it a very dangerous character. Their respective symptoms indicate their presence, but to diagnose the presence of the one or the other certainly requires a skillful mind? A disintegrated condition of the blood brought by humidity of climate or situation and previous disease of a constitutional type are the causes of the disease. But the great and important question- How? remains yet unanswered. Why these conditions should kindle an inflammation in the larynx and trachea in preference to any other part of the mucous membrane is a question involving principles of momentous importance. The great secrets of vital action- its hidden actions- seem denied to the most intuitive observer.

Croup certainly has some connection with hereditary predisposition. In all families the similarity of form and features so often remarked, must have some connection - or rather extend to internal organs as well. Perhaps it is true that each family has some structure or part, the vitality & organization of which is not in proper relation with the rest. Upon this theory the constant tendency, which the members of some families exhibit, to inflammations of the mucous membrane of the air passages might be accounted for.

The mucous membrane of the larynx and trachea has most generally been found in a state of bright red congestion. "Especially is this so about the follicular orifices which pour out fibrin - like the dilated intestinal follicles in like states of dysenteric vascularity - which fibrin coagulates and seeks an organization on the inflamed surface." The false membrane is found generally after death occurs in the larynx and

trachea - either in patches, strips, tubes or cylinders. It is the existence or non-existence of this false membrane which has created that seeming difference between the mild and severe form of the disease. In all inflammations - Professor Paslee affirms an exudation of fibrin from the blood takes place - and that from this fibrin the false membrane is formed. The false membrane is a natural result of the inflammation - and is not dependent upon any peculiarity or specific condition of the disease. The first step in the process is the exudation of fibrin from the blood - the second is its organization. But in a vast majority of cases the organization never occurs to any extent. Many influences conspire together to resist it. The mucous membrane has a conoidal epithelium which does not admit of a perfect contact of the fibrin with the living tissue of the mucous membrane. There is more or less violent motion of the parts - as when the child coughs, - which destroys the contact - prevents the rest necessary to a

complete organization of the fibrin. Thus it is why a false membrane is so seldom formed from the blood which is often exceedingly destitute of its proper proportion of fibrin.

Croup is essentially inflammatory. The organization of the fibrin is a result occurring very seldom yet it is impossible, it is said, to tell whether the false membrane will be formed or not at the beginning of the disease.

From the intelligence derived from the nature and course of the disease the student is taught the rational mode of treating the disease.

Croup presents the two great conditions common to all inflammations - the sthenic and asthenic and these distinctions indicate the proper modification of the treatment.

The ends to be accomplished are first to subdue the spasm and inflammation; second to resist the organization of the exuded fibrin -; third to remove

the film when formed is organized; provide to sustain the patients strength.

It is by producing a revulsive and depleting action in the system that the first indication is best accomplished. The means employed in effecting this are emetics - diaphoretics - cathartics - bloodletting and counter-irritants. As soon as the croup cough or dyspnoea appear whether the patient be of a plethoric or anaemic constitution an emetic should be given and the hot bath applied. The two acting conjointly create a powerful revulsive action and relaxing effect.

The capillary action of the skin is increased - its excretory function thus augmented and the congestion and irritation of the diseased part subdued by the new direction given to the blood and the mechanical effect of the emetic in disturbing the inflamed parts. After the emetic has been given perhaps calomel should be given either alone or in company with some other laxative - suspended in castor oil for instance - in order to clear the intestines from all accumulations and increase

their excretory function. The emetic eminently adapted to any condition of croup - save the most obstinately sthenic cases - is ipecacuanha. Tartar Emetic is approved by many great men and condemned by others - as is indeed most every other remedy. It certainly is the most powerful sedative, yet the infant constitution is much less able to bear such a powerful check to its functions - than the adult. The dose of tartar emetic sufficient to create a perceptibly increased effect in the childs system, over ipecacuan - must certainly be in large enough dose to endanger the patient from its evil action. It is only in prominent sthenic conditions that many great physicians give it the preference. There is a limit to sedation which if exceeded is dangerous [illegible] extreme. The syrups of Ipecacuan & Lobelia combined in equal measures - and given in [illegible] teaspoonfuls every few minutes until emesis is produced is the favorite prescription of [illegible] Chew. The emetic assisted by the warm bath & followed by the cathartic - is the favorite and successful treatment which subdues nearly

all Cases of Croup - If after the spasm is subdued and a sedative effect is kept up by small doses of the ipeca - or the emetic treatment repeated as the case may demand - if the disease persists - evincing a decidedly sthenic character blood must be taken - not from the arm or neck - but by cupping leeches - from the nape of the neck along down the spine - Great men say that cases requiring blood to be taken are rare - Counter-irritants are found often to answer instead - Vesperine is the best - for it can be repeated as often as the case may require. In cases of debility these measures are improper - Agents less depletive are necessary - The nitrate of potassa is given in doses of from five to ten grains every three hours dissolved in water just before being given. Its efficacy is substantiated by many living physicians. Cold should be kept constantly to the neck with the hope that its influence in contracting the blood vessels may prove beneficial.

The resistance opposed to the organization of the fibrin

by the early treatment is great, but it alone should not be relied on save in mild cases. So soon as the disease evinces the slightest stubborness, an astringent local application is necessary. The nitrate of silver applied in solution is the most preferred. It is applied by means of the sponge probang. Nitrate of silver acts as a powerful astringent - but is not a caustic. it does not destroy.
The course of the inflammation is from above downwards - and there is some hope of arresting it by pressing the sponge against the rima glottis - thus squeezing the solution out, it will trickle into the larynx and perhaps reach the inflamed trachea.
If all these measures fail and the febrile inflammatory symptoms subside & yet the patient grows weak and the voice loses its strength, an effort to remove the membrane should be made. Alteratives are the remedies resorted to. The ipecac and perhaps bloodletting diminishes congestion - by lessening the action of the heart & decreasing the pressure in the blood vessels - mercury seems to act promptly in this same way

by impoverishing the blood. Its action is slower but surer. If it impoverishes the blood - absorption and not effusion is the result. Perhaps then the slight effect produced by the first dose of Calomel might be advantageously assisted by small doses even in the early stage of the disease. At any rate it cannot be improper to employ Calomel now. The sooner it can be got into the system the better. Small doses repeated at short intervals is the plan. Children are seldom salivated - but its good effect may be expected without that evidence of saturation. Alkalies and Expectorants are given but it is easy to perceive that there is little confidence placed in their action.
So long as the strength permits vomiting should be induced by an emetic which acts quickly. Sulphate of zinc is the best. Its mechanical effect in removing the membrane has been often witnessed by physicians. Sometimes the influence of Calomel and the Emetic fail. The patient evinces much exhaustion. The only

rope is upon stimulants and tracheotomy. Pathologists assert that a "false membrane on a mucous surface never becomes vascular; but it soon becomes detached and falls off." If the minute bronchi and air cells are unobstructed - stimulants may thus sustain life until the membrane falls off. But often again stimulation seems only to fan the spark of life before it is extinguished. The principle is to sustain life as long as possible and leave the rest to nature or the surgeon.

Tracheotomy has never been performed untill the disease and the treatment have exhausted the patients strength, while stimulants or asphyxia are consuming the rest. It has been successful when the bronchi and air cells have not been obstructed and the strength not entirely fled. But it has been vastly more unsuccessful. Profound discrimination is necessary to decide when the medical treatment should be assisted by the scalpel. When asphyxia is half complete has been the time - but certainly the great men who applaud the operation

do not deem that time most appropriate for the operation when death has already begun to steal over the little sufferer. Perhaps it would be proper to insist on the performance of the operation the disease being uncomplicated the moment the physician doubted the success of his treatment. The operation does not increase the danger. And certainly a timely exercise of authority would save the patient. While a late one, as Great authors have amply proved, is almost certain to fail and thus bring the profession into some disgrace.

An

Inaugural dissertation

on the

Anatomy and Physiology

of the heart

Submitted to the Regents & Faculty

of the University of Maryland

For the degree of

Doctor of Medicine

By

C. Theodore Trautmann.

Febr. 1th 1862.

The heart the centre of the circulation, is situated in the thorax between the two layers of pleura, which constitute the mediasti-
-num, and is enclosed in its proper membrane, the pericardium.

The heart takes an oblique position in the chest, the base looking upwards, backwards, and to the right, the apex forward and to the left. Its upper surface is rounded and convex, formed principally by the right ventricle, and partly by the left, the under side is flattened and rests on the tendinous part of the diaphragm, the left

ventricle forming the apex.

The heart can be divided into two separate organs, the right and left heart, or the heart of the respiratory, and the heart of the arterial circulation, the former containing the venous, the latter the arterial blood.

Each of these two hearts consist of two chambers, the auricle and ventricle, the auricle so called from its resemblance to an ear, the ventricle "Ventriculus, diminutive of venter, belly, or Ventricule literally a little belly" given to various parts in anatomy.

The right or anterior heart, containing the venous

blood is composed of an auricle and ventricle, the auricle situated at the ~~base of the~~ base of the heart receives all the venous blood of the body, by the superior and inferior venae cavae, and the coronary vein.

The vena cava descendens, collecting all the blood from the head and upper extremities, opens into the right auricle in the direction of the aperture, by which the auricle communicates with the ventricle; the vena cava ascendens, collecting all the blood from the rest of the body terminates more backwards, also into the right auricle the coronary veins, return the blood from the substance of the heart con-

veyed to this organ by the coronary arteries. The left auricle receives the arterial blood, by the pulmonary vein.

In the septum between the right and left auricles is a superficial depression, which is the vestige of the foramen ovale. — An important part in the foetal circulation.

The inner surface of the auricles is covered with a great many fleshy pillars, they are however mere varieties of the columnae carneae, found in the ventricles, and are denominated musculi pectinati.

The right or pulmonary ventricle, is situated at the

anterior part of the heart; its base and apex corresponding to those of the heart its cavity is generally larger than that of the left ventricle, but its walls are not so thick. It communicates with the right auricle by the comparatively large opening, called the auriculo ventricular opening, the only opening besides this is the communication with the pulmonary artery. The auriculo ventricular opening is furnished with a valve, known as the tricuspid valve from the edge of which small round tendinous cords, "cordae tendinae" are sent off, they are fixed to the extremities of a few strong columnae carneae, they are long enough, to

allow the valve to lay against the side of the ventricle, during the flow of blood from the auricle into the ventricle, but prevent the valve from opening in the opposite direction. The office of the valve is, to prevent the blood from returning to the auricle, during the contraction of the ventricle. The tricuspid valve consists of three triangular folds of the lining membrane of the heart, strengthened by a thin layer of fibrous tissue, and are connected at their base with the cartilaginous ring, which surrounds the auricule, ventricular opening. The right ventricle is triangular and prismoid

in form, its anterior side is convex, its posterior and inferior side flat tened, the inner side corresponds with the partition between the two ventricles, "the septum ventriculorum."
The infundibulum, or conus arteriosus, is the dilatation of the ventricle, near where the pulmonary artery arises from it. Within the right ventricle especially towards the apex there are numerous strong eminences "columnae carneae", runing in different directions, but the strongest of them longitudinal with the ventricle, they are of various sizes, forming a beautiful texture, their chief use seems to be to strengthen the walls of the ventricle and prevent

their overdistention.

The left systemic heart, or heart of arterial blood, also consisting of an auricle and ventricle, is situated posterior to the right heart, its ventricle forming principally the apex of the heart.

The left auricle is thicker and stronger, but smaller than that of the right side, its columns are like those of the right auricle, but not so distinct. From the under part of the auricle, a circular passage is seen, called, auricular orifice, or ostium arteriosum which leads to the posterior part of the base of the ventricle. The

left auricle receives the blood from the pulmonary artery, its only true openings are two, the one formed by the termination of the pulmonary artery, the other, its auricule ventricular opening.

The aortic or left ventricle is situated at the posterior and left part of the heart, its walls are a great deal stronger than those of the right ventricle, in order to permit the greater force, which it has to exert, the right ventricle merely sending the blood to the lungs, the left ventricle transmitting it to every part of the body. The left ventricle is not so wide, but longer than the right, forming as

above stated the apex of the heart. Its internal surface having the same general appearance as that of the right, and only differs in having its columnae cornuae more numerous, stronger, and larger. The auriculo ventricular opening is also similar to that of the right heart a valve, essential like the tricuspid is given off from the ring or zone, which surrounds the opening, it however is stronger, and divided into two principal portions, the larger is placed between the auriculo ventricular opening and the commencement of the aorta, and acts the part of a valve to that foramen during the filling of the ventricle. The

difference in size of the two valves in the left heart, both being triangular, and the space between them, having a resemblance to a bishop's mitre, give rise to the name mitral valve. Behind the pulmonary vein at the right side of the mitral valve a round opening exists, which is the mouth of the aorta which is provided with three semilunar valves, having at their centres small bodies, named corpusculae arantii; the mouth of the pulmonary artery is provided with valves of the same structure, but somewhat weaker, and the sinuses of Valsalva less prominent than those of the aortic valves.

The two hearts have

the same structure and are both covered by a serous membrane, which is an extension of the inner layer of the pericardium.

The structure of the hearts is muscular, muscular fibres running in every direction, and pass from one heart to the other, the cavities are lined by a thin membrane, the endocardium, which is serous in structure. The walls of the auricles are in both hearts much thinner than those of the ventricles, but their cavities more capacious, and are much alike in size and structure, the ventricles are alike in structure, but differ somewhat in size, the right being generally somewhat larger than the left.

The average weight of the healthy heart in an adult is from eighth to nine ounces, its length from base to apex five inches six lines, its width at the base three inches, thickness of the walls of the left ventricle seven lines, thickness of the walls of the right ventricle two and a half lines, but in females the size of the heart, as well as the thickness of the walls of the different chambers, is somewhat less. The weight and dimension of the heart vary, according to age, sex &c. in different individuals. The heart is completely surrounded by the pericardium, a fibro serous membrane, consisting of two layers, the external layer is fibrous,

inelastic and semitransparent, strongly resembling the dura mater in its texture; it is thicker at its sides than either above or below where it rests on the diaphragm, and above, where it passes along the great vessels, which communicate with the heart. The inner layer is of a serous character, and is also reflected over the heart, giving the polish to the cardiac surface; it adheres to the heart by cellular substance. This membrane secretes a fluid like other serous membranes of the body, which is known as the liquor pericardii; its office is to lubricate the surface of the heart. The fluid is always

present

after death in more or less quantity, and is about a teaspoon full in a healthy organ, but how much may be considered morbid? is yet an undecided question of physiologists, and must vary according to circumstances; — When the quantity of this fluid is augmented by inflammation of the membrane, the disease is called hydropericarditis, which disease may exist in an acute or chronic form.

The use of the pericardium is probable to keep the heart constantly moist by the exhalation from it, and to restrain its movements, which under the influence of mental emotions, or great

portions of the body leaps incredibly.
The circulation of the blood through
the heart may be set down as fol-
lows; the two auricles receive the
blood from their respective vessels at
the same time, forcing it into the,
ventricles, and these two organs also
expelling it at the same time into
the great arteries which originate
from them. Supposing the heart
once filled with blood the right
auricle is stimulated to contraction
the blood is expelled through the
auriculo ventricular opening into
the ventricle, as soon however as the
stimulus is withdrawn, and by virtue
of its elasticity, the walls of the
auricle return to the state, in which

they were prior to contraction, receiving at the same time a fresh supply of blood, now the right ventricle having received a supply of blood, is stimulated to contraction, the tricuspid valve preventing the blood from returning into the auricle, it is forced into the pulmonary artery, distributed to the lungs by its ramifications and undergoing the change of arterialisation; it is then collected by the minute branches of the pulmonary vein, and conveyed by it to the left auricle of the heart, the auricle contracting, it will force the blood through the left auriculo ventricular opening, into the left ventricle, and this organ

stimulated to contraction will propel the blood through the "ventriculo aortic opening" or the mouth of the aorta" into this great vessel, the blood being prevented from returning into the auricle, during the contraction of the ventricle, by the mitral valve, which completely closes the auriculo ventricular opening.

The two sounds, produced by the hearts action, are known as the systole and diastole, the former succeeding the latter, after which we notice a short time of repose. As no muscle of the body can be in constant action, without being thrown into spasm or losing

its strength and power of contraction, and the heart being nothing but a muscle, although seeming to be in constant action, it has its time of rest, and that is when the different chambers receive their supply of blood.

Drs. Sennock and Moore, who agree in the main with Dr Hope, found the sound of the heart to be a combination of the sounds caused by the contraction of the auricles, the flapping of the auriculo ventricular valves, the rush of blood from the ventricles, and the sound of muscular contraction. The second sound they refer exclusively to the closure of the semilunar

valves by the reflux blood of the aorta and pulmonary artery, this they remark: is proved by the greater intensity of the sound over the aorta than elsewhere, the blood having a greater tendency to return through the valvular opening; second by the greater feebleness of the sound over the pulmonary artery, the trunk of which is short, and it soon distributes its blood through the lungs, thus producing but slight impulse upon the valves, in the attempt to regurgitate, by the disappearance of the sound when the heart becomes congested and contracts feebly, and finally on account of its entire extinction, when

the valve of the aorta was elevated. The heart is one of the generators that moves the blood, and its force has been made the subject of much calculation, the results of experiments made by different physiologists, are so various and discordant, that I shall restrict myself to the views of Poiseuille, who concluded after various experiments, and the use of the haemodynamometer on inferior animals, that the force of the left ventricle during its contraction exerts a power of four pounds, three ounces and fourty grains.

But all such experiments modify to a more or less extent the

action of the heart, and therefore we can not obtain with accuracy the force of the heart's action. The contractions of the heart in health are about seventy two, varying to some extent in different individuals.

The heart is supplyed with nerves from the anterior and posterior cardiac plexuses, which are formed by the three cardiac nerves, given off from the first, second and third cervical ganglions of the ganglionic system, and by branches of the pneumo gastric or eighth pair of the cranial nerves.

The circulation of the

blood through the heart of the fœtus is somewhat different, and I shall explain it here in a few words: The process of arterialisation can necessarily not be accomplished in the lungs of the fœtus, the placenta performing this office in fœtal life. The blood of the fœtus is conveyed from the placenta by the umbilical vein "the umbilical vein contains the arterial blood" to the liver of the fœtus, where it gives off some branches for the nutrition of this organ, the remainder of the blood passes through the ductus venosus, into the left hepatic vein, which opens into the ascending

vena cava, which latter vessel con
veys the blood into the right
auricle, it now passes through the
foramen ovale into the left au-
ricle, through the left auricule
ventricular opening into the left
ventricle, this now contracting
will transfer it to the aorta
and is distributed by branches
of this vessel to the head and
upper extremities, having performed
its office, it is returned to the
heart by the descending vena ca
va the mouth of which opens
into the right auricle, it now
passes through the right auricule
ventricular opening into the right
ventricle, thence through the pul-

monary artery, which divides into three branches, two small branches convey blood for the nutrition of the right and left lungs, the third, and largest, is the ductus arteriosus which terminates into the aorta below where it gives off the branches for the nutrition of the head and upper extremities, now circulating with the rest of the blood through the remainder of the body, the whole blood is returned to the placenta by the two umbilical arteries given off from the hypogastric veins of the foetus.

A
Clinical Report of Cases;

Submitted to the Examination
of the
Provost, Regents, and Faculty of Physic
of the
University of Maryland,
for the
Degree of Doctor of Medicine.
By
Edward R. Trippe
of
Maryland
Class of 1862.

Case 1st.

Sub-acute Rheumatism

A Perrenoud, a soldier, aged thirty-one years, was admitted into the Infirmary on the 12th of June, labouring under Sub-acute Rheumatism. He had a very severe pain in the right arm, and stiffness of the elbow joint; the constitutional trouble was not very great.

Dr. Chew saw him and ordered,

℞ Potas. Bicarb. ʒiß
Aqua ℥iv
M.

S. A tablespoonful three times a day and

℞ Pulv. Ipecac, comp. grs x
S. at night

June 13th Patient somewhat better,

but the bowels not having been moved for two days, he was ordered,

℞ Hydrarg. Sub. Mur. grs. vi
Pulv. opii gr. ß.

S. take at once, and

℞ Calc. Magnes ʒß
Aromat. Syr. Rhei ℥ß

S. if the bowels were not moved in six hours.

June 14th. Patient not so well to-day, and the Doctor ordered,

℞ Bicarb. Potass. grs. x

S. every two hours, and,

℞ Vini Colchici gtt xv

S. three times a day, and,

℞ Hyd. Sub. Mur. grs. vi.
Pulv opii gr. ß.
M. ft.

S. at night.

June 17th. Patient complained of pain in the lumbar region, and four cups were applied.

The mercury, and opium were repeated on night.

June 18th. Patient, better to day. The doctor ordered the arm to be rubbed with volatile liniment, and an aperient to be given immediately.

June 20th. The arm being very painful a splint was applied along the anterior surface, and the arm suspended in a sling. He was ordered,

℞. Pulv. Specac. comp. grs. v.
S. every six hours.

The mercury, and opium were stopped.

June 22nd. Pain much diminished. The patient complained more of stiffness, and the doctor ordered the arm to be rubbed with volatile liniment, and the Potass. Bicarb. to be discontinued; in the place

which he ordered,

4 Polar Codidi gr v

3. Three times a day

June 14th Arm very much improved; no pain, and but very little stiffness remaining.

The patient left the house the next day, as he had to return to New York; he was however almost well.

Case 2nd.

Typhoid Fever

William Hammin, Sailor, aged nineteen years, entered the Infirmary on the 20th of March, labouring under symptoms, indicating typhoid fever, viz. pain in the head, neck, and loins; diarrhoea and gurgling in the intestine, but no rose coloured spots had yet appeared. He had been sick four days, before entering the house: he was put upon the following treatment,

℞ Hyd. sub. mur. grs. vi.
Ext. Colocynth. grs iv
M. ft. Pil. S. At once.

March 22nd Doctor saw him, and ordered cups to be applied to the abdomen, and, after the cups were taken off, a poultice to be applied. Also ordered the patient to be given,

℞ Spts Æther. nitrici
Vini. Ipecac. āā. ℥ss.
M. ft. Sol.

S. Teaspoonful every three hours.

March 23rd " The mixture was stopped, and he was ordered,

℞ Potass. chlorat. ℥ii
Tinnod. Tr. Veral. Viridi f. ℥ss.
Aqua ℥vi

S. Tablespoonful every four hours.

March 24th " Pulse strong, and full, bowels frequently moved. he was kept upon the same treatment

March 25 Diarrhoea still continuing with pain over the intestines, he was ordered four drops of Laudanum with each dose of his mixture. also cups and poultices to the abdomen.

March 26th " Pneumonia set upon the right side. pulse much reduced. Former medicines were discontinued,

and he was given Brown Mixture, with-out Laudanum. Cups to the side also,

℞ Sulp. Quinia.
Pulv. Specac. comp. āā. grs. ii.
S. Every three hours.

March 28th. Patient had much pain, and the cups were again applied, and he was ordered,

℞ Mass. Hydrarg. grs. iii
Pulv. opii grs. i.
S. At night.

March 30th. Patient complained of pain, with some return of fever. Other remedies were stopped, and he was ordered,

℞ Potass. Chlorat.
Spts. Æther. Nitric. āā ℥ss
Tr. Cardamon ℥ii
Aquæ ℥vi
M. ft. Sol.
S. Table-spoonful every two hours.

April 1st i.e. patient improving very fast. he was ordered,

℞ Pulv. Ipecac. Comp. grs x
Sulp. Quinia - grs iii
S. At Night.

April 5th Being almost well, the mixture was stopped, and he was given.

℞ Haxam's Fr. Bark ℥i
Fl Ferri Chloridi gtt xxx
S. Three times a day.

April 10th Patient is now able to walk about the house, and will be permitted to leave in a few days.

Case 3rd

Gun shot wound in the chest

James Oakley, aged twenty five years, a private in one of the Pennsylvania regiments, was admitted into the Infirmary on the 21st of May, with a bullet wound in the left breast, just below the nipple; he was accidentally shot by one of his comrades, who was showing him how he would shoot a Secessionist, should an opportunity offer, when by accident his pistol exploded, and shot — not a rebel — but one of his Excellency's most loyal subjects.

The ball fractured the sixth rib near its cartilage, and passing through the body, lodged between the clavicle, and fourth rib,

where it could be distinctly felt.
Dr. Butler was the attending physician at the time, he examined the wound, and ordered a poultice, medicated with opium, also

℞ Pulv Opii gij
S. Every three hours.

The patient did not seem very weak from loss of blood, and suffered very little pain; had quite a good pulse, and seemed to be doing well.

There had been no hemorrhage from either stomach, or lungs, nor was there any empyema; and no signs of pneumonia or pleurisy could be discovered.

May 24th. Patient complained of much pain in the side, and upon examination, he was found to have well marked pneumonia, in the lower lobe of the left lung,

and he was ordered

℞ Hyd. Sub. Mur. gr. i

Ambi. et Potass. Iod. gr. ½

S. Every three hours.

Calc. Magnes ℥i

Syr. Rhei aromat. ℥ss.

S. ℔ once.

The opium was discontinued during the day, but he ordered

℞ Sulph. Morphia gr. ¼

S. at night.

May 25th Symptoms of pneumonia had somewhat diminished, with heat. The cathartic having acted a little too freely, chalk mixture was given, and the pills were given three times a day, instead of every three hours.

May 27th The pills were stopped, and the patient being very weak, porter was given twice a day.

In addition he was ordered,

℞ Sulph. Cuprea grs ij

S. three times a day.

May 28th. Patient having considerable pain, was ordered,

℞ Pulv. opii grj

S. three times a day.

June 4th. Patient seemed a little better. Quinine, and opium were stopped, and he was ordered.

℞ Tinc. Cinchona f.℥i

S. Half an hour before each meal.

June 6th. The patient seemed better than he had yet been, and sat up a little while.

The discharge from the wound being some-what fetid, a weak sol. Soda was sprinkled on the poultices.

In the afternoon a remarkable change took place; while sitting up, he suddenly became sick at the stomach,

and vomited large quantities of coagulated blood. The cinchona was immediately stopped, and he was ordered,

℞ Plumbi Acetas. grs.iii
Pulv. Opii grs.fs.
S. Every two hours.

June 7th. The patient vomited blood again to-day, which was more fluid in character: he was ordered

℞ Creasoti gtt.i.
Syr Tolu ℥i
S. Every three hours.

Dr. Smith saw him, and said that he thought a cyst had formed outside of the stomach, which had broken into that organ; hence the so sudden, and copious vomiting of blood.

June 8th. The patient vomited but once to-day: the pills, and

chloroform were stopped, and he was given,

℞ Ferri Chloridi gtt. xx
S. Every four hours.

June 10th. No more vomiting had occured, but the patient complained very much of pain over the seat of the ball; poultices were applied, and he was given an night an eighth of a grain of Sulphate of Morphia.

June 12th. Patient seemed very weak to-day, and vomited whenever he took the iron, it was therefore discontinued, and he was given an ounce of brandy, and two grains of quinine, with each meal.

June 14th. The ball seeming to cause the patient a great deal of inconvenience, Dr. Butler cut down upon, and removed it.

Poultices were then applied.

June 24th Nothing of any interest took place from the 14th to the present date, except an occasional vomiting of blood. The patient having by his own imprudence caught cold, had a cough, and pain in the chest this morning, and the doctor upon seeing him, ordered the following prescription

℞ - Soda Bicarb	℥iv
Potas. et Antim. tart.	grj
Vinc opii Camp	℥j
Saccher	ʒj
Aqua	℥iv
Mt. Sol.	

S. Tablespoonful every four hours.

June 25th Patient appeared much weaker this morning.

He vomited blood once. The cough syrup was stopped, and the brandy increased.

June 26th Patient vomited several times this morning, and

about three oclock in the afternoon, after vomiting very freely, it became evident that he was dying.

He died about four oclock.

At night Dr. Butler, assisted by the resident physician, and students, made a post mortem examination.

The orifice of the wound had nearly closed. Upon opening the body, the sixth rib was found fractured near its costal cartilage; the ball glancing downwards, passed through the lower lobe of the left lung, and lodged between the eleventh, and twelfth ribs, from which place it had been removed before his death.

There was a good deal of pneumonia about the lung, the lower part of which was gangrenous, and had become attached to the walls of the thorax, and to the diaphragm.

The stomach was also adherent to the diaphragm, and abdominal walls.

A cyst had formed in the lung, which had perforated the diaphragm, and stomach, leaving a hole about half an inch in diameter, through which blood and pus had been poured into the stomach.

The coats of this latter organ were very much thickened, and corrugated.

The heart was not injured, but there was considerable effusion in the Pericardium.

Case 4th

Stone in the Bladder

Horatio Deans, a farmer, aged forty years, was admitted into the infirmary on the 21st of October, labouring under symptoms, indicating stone in the bladder. The patient had been examined by Prof. Smith, four years before, and was advised by him to have the stone extracted, but would not submit to the operation, and had been getting worse ever since.

The symptoms on his entering the house were weak pulse, great difficulty in making water, urine thick, and bloody and coming from him in drops.

The urethra was very irritable, and there was a large tumour just above the pubis.

Dr Smith examined him

before the class, and pronounced the tumor to be an enlarged prostate. Upon introducing the sound into the bladder, which he did with a great deal of trouble, on account of the enlarged gland, and his finger into the rectum, he said that there was a stone in the prostatic portion of the urethra, but could discover none in the bladder.

Having discovered the stone, the doctor thought it advisable not to operate at that time, as the patient was very weak, and irritable, but ordered tonics to be given.

℞ Sulph Quinia gr i
S. three times a day.

Oct. 24th. She is not more unwell this morning. The doctor

examined him again, and declined to operate at all, expressing doubt, as to his living through the operation if it should be attempted.

Stimulants, and tonics were given. Oct. 28th Up to this time the patient had been gradually sinking, and, in the evening, was partly in a state of coma; he continued in this condition, until his death. He died the day after, about four o'clock, and Dr Smith made a post mortem examination. The prostate was greatly enlarged, and diseased; the bladder was also very much diseased, and found to contain a large quantity of pus, its coats being greatly thickened, and corrugated.

The stone, a small Mulberry calculus, was found deeply buried in the prostatic portion of the urethra.

Case 5th

Intermittent Fever

Benjamin Newman, a sailor, aged forty four years, was admitted into the infirmary on the 27th of March. He had been sick for more than three weeks with intermittent fever. The fever was of the tertian type. The patient had some enlargement of the spleen, and liver, and was very weak.

March 28th. Patient expected a chill to-day: the doctor saw him, and ordered,

℞ Sulph. Quinia grs x
Sulph. Morph. gr. ¼
Sulph. Magnes. ℥ii
Aqua ℥ii
M. ft. Mist.

S. At once.

Also. ℞ Mass. Hydrarg. grs ii
Pulv. Podophil. gr. ¼
S. At night.
And a blister to be placed over the liver.

March 29th The patient had not yet had another chill; the doctor saw him, and ordered,
℞ Fl. Ferri Chloridi gtt. XX
Sulph. Quinia grs. iii
S. Three times a day.
℞ Mass. Hydrarg. grs. ii
Pulv. Podophil. gr. ¼
S. Every second night.
April 1st Patient has had no more chills, but the quinine had given him a headache - it was therefore stopped: the iron continued. Blue Mass and Podophillin every third night, and, ℞ Fl. Valeriana
Hoffs. Anod. āā ℥ss
S. at night.

April 2nd The patient decidedly better but the bowels being somewhat constipated, he was ordered

℞ Magnes. Sulph. ℥j
Magnes. Calc. ℥j
S. At once.

℞ Tr. Valeriana f. ℥j
S at night.

April 4th Patient had still some swelling about the spleen, attended with pain.

He also suffered much from headache; he was ordered,

℞ Ung. Iodidi comp.
S. Apply over the spleen
& Comp. Belladonna
S to each temple to-night

April 6th The patient seemed a great deal better to-day - but the pain in the region of the spleen, still continuing, leeps were applied

April 7th Patient improving rapidly.
but being rather weak, was ordered

℞ Ferri Chloridi gtt xxv

Tr. Bark - Humanus f. ℥j

S. Three times a day

April 13th Patient left the house
to day, convalescent.

Case 6th

Pneumonia

John Smears, a tailor, aged twenty seven years, entered the Infirmary on the 22nd of March, labouring under Pneumonia.

The patient stated, that he had previously been a temperate man. Upon examination, the right lung was found to be in the first stage of the disease.

Fine crepitation was well marked, and the sputa rusty.

Dry cups were applied.

March 23rd Dr Warren saw him, and ordered

℞ Hydrarg. Sub. Mur. grs. vi
Pulv. Ipecac. Comp. grs. xii
M. ft. Pulv. vi.

S. one every three hours.

Brown mixture was ordered for his cough, and cups reapplied.

March 25th. Fine crepitation had disappeared, and signs of the second stage made their appearance, viz. Broncophony, Bronchial respiration, and dulness on percussion.

A blister was applied.

March 26th. Fine crepitation returning. Pulse weak. He was ordered,

℞ Sulph. Quinia grs
S. every three hours.

March 28th. The powders of Calomel were stopped, and as he was rather weak, the doctor ordered him to take beer with his meals. Respiration almost natural.

March 29th. The patient still improving; the doctor upon visiting

him ordered,

℞ Red. Terpentac. ℥i

Aqua Stil. ℥i

S. A wineglassful three times a day, with the quinine.

March 30th The quinine was stopped; other remedies continued.

April 4th The patient having considerable pain in the chest, attended with cough, was ordered brown Mixture, and a small blister applied, also,

℞ Pulv Ipecac. Comp grs. viii

Hyd. Sub. Mur. grs. iii

M - ft. Pulv. i - S. at night

April 10th The doctor stopped all other medicines, and ordered

℞ Potass. Iodidi grs v.

S. three times a day

April 12th The patient left the house to day, perfectly cured.

An Inaugural Dissertation on Injuries of the head.

Submitted to the examination of the Trust. Regents and Faculty of Physic of the University of Maryland. for the Degree of Doctor of Medicine

by

Geo Harrison Trumbo
of Md.

I know of no subject that will better repay either in a pathological or practical point of view the labor necessarily bestowed upon a medical thesis than the one which I have chosen, viz.

Injuries of the head.

The importance of this subject arises not so much from the special consideration of the mere injury of the scalp or cranium, but rather to lesions of the encephalon, which are often caused by implication - either directly or indirectly - of the brain and its membranes. In consequence of this tendency to cerebral affections arising from injuries of the head, it is of great practical importance to study them as a whole, keeping constantly in view this tendency to affections of the encephalon produced

by C[illegible]; and from which fact injuries of the head derive their greatest interest and importance.
There cannot be expected however within the limited bounds of a thesis a detailed account of every thing comprehended under the above title as it is a subject embracing several affections very different in character and requiring directly opposite modes of treatment.
These different affections are not always well marked and insulated in their character, but on the contrary are often found blended together in a manner so extraordinary as to puzzle or confound the most experienced practitioner. So well indeed has this fact been appreciated by eminent surgeons that the great and experienced Nemon has said that "the

young surgeon who for the first time witnesses a series of injuries of this description will at every step have something to unlearn; he will find symptoms so complicated contradictory and insufficient to give any rational clew to their causes diagnostics, of the truth of which he had read himself into a conviction, so totally unsupported by the results of practice; and the sympathies he was led to look for as infallible accompaniments of certain states of disease so often wanting altogether; that he will probably be inclined to relinquish the hope of ever arriving at a correct theory or at least he will enter the clinical wards with the pride of science considerably subdued."

It is necessary that we should first understand the nature and treatment of the principal forms of these accidents, before we study the peculiar modifications of it

required by the conditions that produce them.

I shall therefore begin with affections of the brain, the principal ones being Concussion and Compression; either of which may be complicated with or followed by various inflammatory actions, deriving their characteristics from association with the conditions that produce them:

Concussion, or Stunning may be only slight producing vertigo sickness of stomach, dimness of vision, trembling of limbs; or it may be very severe; the accident producing it being immediately followed by insensibility, coldness of skin, relaxation of the extremities, feebleness and irregularity of pulse, difficulty of breathing and dilatation of the pupil. This affection is caused by a shock to the nervous system of sufficient violence to produce commotion of the brain, or interfere with the circulation through it. After the above named

symptoms have existed for a time, reaction begins to come on, vomiting takes place which act seems to facilitate the heart's action in sending blood to the head; the patient may be aroused, and by putting a question to him in reference to his disease in a loud sharp and quick tone of voice a short answer may generally be obtained; the pupil also begins to contract and is now susceptible to light, sensation and the power of motion begin to return; occasional fits of restlessness come on, the pulse rises and becomes very much accelerated when the patient makes exertion of any kind. These symptoms may gradually subside and the patient resume his normal condition; or they may merge into a state of compression: there is also danger of inflammation of the brain occuring since it is seen that the pulse augments in volume as the immediate symptoms subside.

Treatment.— The first indication is to favor reaction, but in fulfiling this indication care must be taken not to overstimulate the patient, as such a course would favor the occurance of inflammatory symptoms. As a general rule reaction may be brought on by wrapping the patient in warm blankets, applying frictions to the surface especially the feet and abdomen, and by placing bottles of hot water around them. After reaction has come on, the efforts of the surgeon should be directed to the prevention of inflammation; and with this in view the patient should be well purged, kept in bed in a cool quiet room for some days, the most unobjectionable diet adopted, and careful abstinence from alcoholic stimulants and mental exertion enjoined. If in the meantime inflammatory symptoms should set in, they should be vigorously combatted

at once and it is the happen in the head.
The state of the bladder must always be attended to and the catheter, used if necessary.

Compression.

Compression of the brain is a common affection in injuries of the head and its cause may be depressed fracture, or blood or pus in the brain or its membranes. Although the symptoms may present some differences they are generally the following; The patient is found in a state of lethargy, or coma, more or less paralysed, not perfectly insensible, the breathing slow and regular, the pupils greatly dilated and insensible to light. There is no sickness or vomiting which symptom will distinguish it from concussion, yet I imagine it is seldom met with perfectly free from symptoms of concussion for the various obvious reasons that

in very many cases the two diseases are dependent upon the same cause.

Treatment.- If called to a patient soon after an accident, who is labouring under all the symptoms of compression I should take blood freely from the arm; repeating the operation as often as the pulse rises so as to require it. In addition to this treatment I should administer purgatives, with the hope in some cases at least of seeing the symptoms relieved or so entirely removed that an operation would be unnecessary; and at the same time having the satisfaction of knowing that if I should be disappointed in this I would not have to accuse myself of having done anything that would compromise my patients chance of recovery after an operation. [illegible] the operation to which I would be called upon to perform under the following circumstances. [illegible]

p. fracture with depression, provided the symptoms persist after the treatment spoken of in compound depressed and in punctured fractures without symptoms of compression and also when the symptoms are very urgent and the surgeon has reason to believe that they arise from blood or pus between the cranium and dura mater or fracture and depression of the inner table. But we find in the earlier history of surgery that the rage for trepanning as it was called among the ancients was so great, that the mere suspicion of the slightest fissure was considered a sufficient justification for an operation, so that they operated as well to prevent dead symptoms as to remove them, and this doctrine of trephining all fractures was in later days revived and defended in France by the Royal Academy of Surgery. But the many unfortunate results from

it soon led surgeons to be more guarded in its employment, and it is now used only under the circumstances before mentioned. The operation should be performed in the following manner: the head is to be shaved, that portion of the skull to be trephined is to be exposed by a crucial or T shaped incision, the trephine with the centre pin projecting about an eighth of an inch, is to be firmly applied, its teeth touching all parts of the skull; it is then moved with a sharp quick movement, pressure being applied as the hand moves from left to right. As soon as a good groove is formed by the crown, remove the centre pin lest it injure the dura mater. The surgeon can tell when the outer table is cut through, by the detritus which rises by the crown being soft and blood, instead of dry as it is in the outer table. The operation must now be conduc-

-lid with more caution. The surgeon every now and then examining with a quill or something of the sort the depth that has been obtained, care being taken to have it uniform throughout the circle. As soon as the "button" is loose it should be removed, and the object for which the operation has been performed carried out, viz. the elevation or removal of depressed bone and the evacuation of pus or blood. The scalp should then be laid down again, a few sutures and a piece of water dressing applied. Antiphlogistic measures should now be adopted, as there is danger of inflammation of the brain and its membranes. It is said also that abscess may occur from phlebitis of the sinuses and veins of the diploe. Trephining should never if avoidable be performed

ver the sinuses or near the base of the skull.

Inflammation of the brain and its membranes.

In speaking of concussion and compression I have alluded to the occurence of inflammatory symptoms as something to be dreaded and avoided if possible. It is now no more than right therefore that I should say something in regard to this condition as a distinct affection. Traumatic encephalitis or inflammation of the contents of the head caused by a wound is a very [illegible] affection and is of frequent occurance; it may arise from any severe injury of the head; and its very inception may be marked by the greatest intensity; or it may creep on in a slow and insidious manner not attracting attention until it has given rise to effusion

or suppuration, when the symptoms become so mixed up as to render an exact diagnosis a difficult matter. The symptoms of the acute form usually come on within twenty-eight hours of the accident. The patient complains of severe and increasing pain in the head the carotids beat forcibly the pupil is contracted the eye intolerant of light the ears of sound the senses of sight and the pulse is full and bounding. Wakefulness and violent delirium quickly supervene with all the symptoms of severe constitutional pyrexia.

This affection may sometimes be cured by proper treatment but the symptoms of inflammation generally give place to those of compression, the delirium merging into coma, from which it is difficult to rouse the patient and

the pupils gradually dilate. The approach of death may generally be known by the relaxation of the sphincters, the fulness of the pulse, the coolness of surface and the intensity of the coma. Finally, the patient sinks with exhaustion combined with compression.

In these cases pus may be found in the encephalon, either diffused or in the form of abscess. In others the symptoms appear to be caused by a larger of lymph upon or serous fluid in the ventricles or about the base of the brain.

The Chronic or Sub-acute is the most interesting and important form of this disease following injuries of the head. It may be caused by injuries merely of the skull. Nothing in the patient may have in all appearance intervened from the accident — as well as by those that implicate the encephalon. We are sometimes led to suspect

its coming by an unusual amount of irritability of temper or some functional disturbance of the brain as loss of mental vigor &c. In such cases the disease may be ushered in by a fit of epilepsy or great aggravation of the prevalent symptoms but [illegible] the symptoms come on without any warning, are very intense, and speedily prove fatal. The symptoms of sub-acute encephalitis are those of inflammation, irritation and compression; one or other of these symptoms always appearing to predominate. The irritation and inflammation proceed from the increased vascular action; the compression from pressure upon the brain caused by [illegible] lymph or serous fluid. The most characteristic symptoms are pain in the head, intolerance of light, screaming

[illegible] convulsive twitchings of the face and limbs and lastly symptoms of coma eventually terminating in the patients death. These symptoms are mainly dependant upon inflammation of the arachnoid membrane, and so generally has this been found to be the case that some surgeons have proposed for it the name of arachnitis.

To be able to diagnose the formation of pus within the cranium is a point of much interest in these cases, and it has been attempted by Popp and others to establish rules by which the occurrence of such formations might be told with accuracy. They say that if an a[illegible] of encephalitis shiverings come on, followed by a gradually increasing comatose condition which finally reaches a [illegible] of complete coma, whilst the inflammatory symptoms do not abate; and at the same

but a puffy swelling forms on the scalp and the wound, - if there be any. Case is suppurate and the pericranium separates from the bone which is dry and yellow and also will be found under the skull, in all probability corresponding in situation with the change observed in the scalp and pericranium. Now of foregoing a look very reasonable, and I have no doubt that whenever the symptoms above named occur in the order and with the precision mentioned they are evidence of the formation of pus within the cranium. But I imagine that in a great many cases these symptoms are not all present, and then the surgeon can only guess in regard to pus, for although the coma may exist it may ... from

pressure or something else as lymph or serum.

In traumatic meningitis the thoracic and abdominal viscera more especially the lungs and liver are liable to be implicated in some secondary mischief. The lungs are become congested and take on a typhoid form of pneumonia; and it is a notable fact that abscesses often form in the liver sometimes within thirty six hours after an injury of the head. This connection between injuries of the head and hepatic abscess is said to be the result of pyemia, caused by suppuration of the diploe, the abscess being a metastatic deposit consequent upon inflammation of the diploetic veins, and cerebral sinuses.

I hardly think it necessary, for me to say anything in regard to the treat

not of inflammation of the brain and its membranes, as there is manifestly but one indication to be fulfilled, and that is to subdue inflammatory action; and the surgeon must take advantage of every thing compatible with the welfare of his patient that will accomplish this in the most satisfactory manner. Calomel should be used in such a manner as to affect the mouth as speedily as possible, and at the same time other antiphlogistic measures should be cautiously used. The disease is however a very unmanageable affection, to say the least of it. It often terminates in loss of sense, diminution of intellectual power, or in local paralysis. On account of the inflammation often being of a low or erysipelatous kind it will not bear depleting

measures, and consequently difficulty is experienced in treating it. In such cases I should place much stress on the judicious employment of mercury and the use of counter-irritation. I would use the mercury first so as to affect the gums slightly, and then only in just sufficient quantity to keep them so and I think that in some more chronic cases advantage might be obtained by the introduction of a seton in the back of the neck.

There is yet — coming under the head of cerebral disturbance and other condition to be described and notice, I have already spoken of incidentally in connection with acute encephalitis. I mean by irritation of the brain. It may supervene upon a condition of the

fluid or it may complicate Concussion and Compression, although it differs from the latter in. It is caused by increased vascularity, and is sometimes accompanied by laceration of the substance of the brain. The patient lies in a half conscious state, and until aroused does not observe what is going on around him. He is continually moaning and tossing about, and sometimes curls himself forward, with his knees drawn up towards his chest. He speaks to his answers peevishly if at all, and often frowns and wrinkles his countenance as though it gave him pain to fix his attention. He is sometimes seized with convulsions or fits of delirium, shouting and screaming. The pulse is usually

slow, face pale, skin cool, and there is total absence of any thing like inflammatory symptoms. The condition generally results in speedy death from convulsions and coma.

I believe the most approved treatment for irritation of the brain resulting from injury, is the moderate employment of antiphlogistics, in some cases coupled with, in [illegible] following it, the administration of opiates.

This is the only one of these affections of the brain in which opiates are admissible and Erichsen says he has occasionally found a full dose of laudanum quiet the delirium and by inducing sleep restore the patient.

I have now finished what I had to say in regard to lesions of the

encephalon and their treatment. And although anxious as the importance and brevity of my [illegible] in comparison to the ground over which I have travelled [illegible] at least to as great an extent as I am capable, accomplished my aim; which was not to go into a minute history and elaborate explanation of each and every one of the numerous phases in which the affection presents herself, for it was full well convinced at the outset that to do so would be not a work of supererogation, it would be quite the space necessary allotted to a medical thesis but merely to review the subject and select every thing practically useful, rejecting every thing merely theoretical or philosophical from

with a fracture of the cranial bones.

We have to consider now another class of diseases coming within the range of injuries of the head which though of minor importance compared with those already described yet claim our attention from the fact of their very frequent occurrence and also of their having some peculiarities with which it is very well to be acquainted. We have reference to injuries of the scalp.

First contusions which though of very frequent occurrence but seldom amount to any thing, as it is very rare that the scalp sloughs. This fact is owing to the great vascularity of the parts. Persons may be deceived into the belief of a fracture of the cranium especially in children, this is, in

extravasation of blood causing a slight tumor, the edges of which feeling hard give the other the appearance of depression of the subjacent bone. In young children where the skull is soft and cancellated it may be indented by a blow without any extravasation of blood, thus giving the appearance of depression of the bone.

The treatment is simple consisting in the application of evaporating lotions; and in the majority of cases of simple contusion the patient will get along as well without any treatment other than such as he will naturally apply as a little water or whiskey and water to cool the part.

Neuralgic pains from contusion of the scalp sometimes occur in girls and

young women which are exceedingly resistant to treatment. Incisions down to the bone are said to be sometimes beneficial.

In newly born children it sometimes happens that during delivery either naturally or otherwise a contusion primarily on the parietal eminence is received, which occasions a bloody tumor, often large and fluctuating which is termed Caput-Succedaneum. It may occur either between the aponeurotic structures and the pericranium, or between this membrane and the bone.

The treatment consists principally in the use of discutient lotions, which generally cure the affection in a few days.

Wounds of the scalp occur very frequently and are more dangerous particularly in those of middle life or broken or unhealthy constitution.

than are corresponding wounds in other parts of the body. The reason of this is that there is more danger of erysipelatous inflammation taking place, and there is also more danger of inflammatory mischief being propagated to the encephalon. But while there is this danger to life in wounds of the scalp, there is but little danger to the scalp itself; owing as before stated to its great vascularity and consequent vitality. Treatment.— There is one thing that should be kept constantly in mind even in treating the slightest injury of the scalp to which the surgeon may be called to attend. And that is to allay and keep down inflammatory excitement, so as to ward off as much as possible the tendency to erysipelatous and cerebral inflammation

This condition of things is best avoided by the simplest possible treatment that can be used. Suture should never if avoidable be applied to wounds of the scalp and no portion of the scalp should be cut away, and this is an axiom in surgery, no matter how much lacerated and contused, however much begrimmed with dirt: advantage is taken of its great vitality to place it back, always with a hope of its healing. With these exceptions wounds of the scalp differ in no particular from those of other parts of the body.

I come now to consider the third and last part of my subject viz:

Fracture of the Cranium.

Nature seems to have been lavish in fortifying the cranium against external violence, for she has not only given to it that form which

is most capable of resistance, but she has furnished it with additional strength by the tissues surrounding it, and also by constructing it of different bones, and uniting them together by sutures. We see at once therefore that by its spheroidal form and anatomical structure the cranium is eminently fitted for its office of protecting the delicate and sensitive structure contained within it. Yet it is susceptible of fracture, and this, accordingly, alarming and dangerous accident, is not the most infrequent one to which humanity is subject.

Fracture of the cranium may be caused in two ways, either by force being applied directly to the injured part, as a blow or fall upon the head

and the fracture takes place just where the force is applied; or else by what is denominated Counter stroke or indirect force in which case the fracture takes place in a different part of the skull from where the force is applied. For instance; fracture of the base of the skull is generally the result of counter stroke, 1st because it is the weakest part of the cranium, and a heavy obtuse substance coming forcibly in contact with the top of the head, the force is carried throughout the architecture circle and the base being the weakest part very naturally gives way. 2nd The position of the base of the cranium renders it comparatively free from danger of direct violence.

Fractures in all other parts of the cranium than the base, are the result of direct force.

The ancient writers divided fractures of the cranium into many different varieties, but as these led to no beneficial results and burdened the memory unnecessarily they have been abandoned, and there are now generally but six classes considered necessary to show clearly the views entertained respecting their nature and treatment. They are First, Simple fissure or fracture without depression. Second, Simple fracture with depression. Third, Punctured fracture. Fourth, Compound or open fracture. Fifth, Fracture of the external table alone. Sixth, Fracture of the internal table alone.

Simple Fissure or fracture without depression.

In this injury there is no wound of the scalp and the fragments of bone

maintain their natural position. It is often therefore overlooked and remains a matter of uncertainty through life. And it is a matter of little consequence in many cases for when there is no accompanying injury of the parts within the cranium the patient does well without treatment.

But there may be complications attending it which may render it a very alarming disease. The force which cracks the bone may cause separation of the dura mater, extravasation of blood or laceration of the brain, or else simple fissure of the outer table with fracture and depression of the inner.

Treatment.— In any of the above complications the surgeon must be governed by the exigencies of the case and apply the treatment already prescribed if Concussion supervenes with.

Simple Fracture with depression.
The signs of this injury are destruction of the natural symmetry of the head, and generally a bruise of the scalp. As before stated in speaking of injuries of the scalp, there is a condition which simulates this fracture, and is well calculated to deceive the unguarded observer. I allude to the swelling which takes place when in a bruise of the scalp the surrounding cellular tissue is gorged with extravasated blood, and the edges are so firm to the touch that they are likely to be mistaken for the fractured edges of bone.
Treatment.— In depressed fracture there is always danger of compression, if this exist to a great extent trephining is the only remedy, but if it is only slightly marked,

then it is well to endeavour to relieve it by bleeding, purging and the continual application of cold to the head after it has been shaved. Under alleviating treatment the brain often becomes accustomed to its new condition and the symptoms disappear, but when the compression is well marked and comes on immediately after the accident, and when also the depression is very manifest and to a great extent, the symptoms alarmingly urgent, the surgeon is then justifiable in trephining at once without waiting to try the effects of the allevialing treatment.

Punctured Fracture.

This form of fracture may be caused by any sharp instrument, and usually presents the appearance of a cavity or puncture. There are often numerous fissures radiating from the

centre when it is called a radiated fracture.

The internal table being more brittle than the external is generally injured to a greater extent and there are often small splinters of bone forced down into the brain which if not removed will occasion the most disastrous consequences.

The treatment consists in the immediate operation, and the employment of rigid antiphlogistic measures.

Compound or open fracture with depression.

The general appearance of this case differs from those already described only in having a wound of the soft parts, thereby exposing the brain & its membranes to the air.

Treatment. — In regard to the treatment of this affliction, eminent

Surgeons have disagreed some favoring an immediate others deciding against operation unless there existed decided symptoms of compression or irritation; or deferring an operation until such symptoms or until symptoms of extravasation or suppuration come on. But I think Sir Astley Cooper has laid down the best rules for the treatment of this affection, and it should always be striving to follow them. He says, "Compound fracture is very generally followed by inflammation of the brain, and it will be no use to trephine when inflammation is once formed for then the patient will die whether you trephine or not."

Fracture with depression of the external table.

This is a very rare fracture and unless complicated with injury to

the brain does not merit any afraid interference on the part of the surgeon.
When the external table alone is fractured, the bone is very slightly depressed into the diploe, there are no symptoms of compression and union generally takes place quickly.
This fracture does not occur in young or old persons as in them the diploe is too thin to admit of any depression of the external table alone.
Fracture with depression of the internal table alone.
This like the preceding is also a very rare fracture, and can never be told with absolute certainty during the patients life. There may be circumstances which would lead us to suspect a fracture of the kind but this is at best but guess work.
When the injury received has not been of

sufficient violence of itself to cause insensibility, and yet the patient becomes insensible the moment the injury is inflicted it is then presumable that a fracture of the inner table may have taken place. But I should think that is next to an impossibility to tell when an injury has been insufficient to cause coma for while some persons may require but a slight tap, others will require a force ten times as great.

These are always unsatisfactory cases to treat, for the surgeon can never be certain in his diagnosis, but must be governed by circumstances connected with the case, and which may have some influence upon it.

The treatment should be conducted upon the general principles already laid down.

George Harrison Trumbo,

An
Inaugural Dissertation
on
Enteric Fever
Submitted to the Examination
of the
Provost Regents, and Faculty
of the
University of Maryland
for the
Degree of Doctor of Medicine.
by
Irving Wallace Bigham
of
Delaware

1861-62

Enteric Fever

It has been satisfactorily established that an acute febrile affection exists, exhibiting a variety of symptoms, some of which are common to other fevers, but others peculiar to its self. This affection has been described under a great many appellations, the majority of which seem to confound it with other diseases which it only resembles, and from which in its pathological lesions it widely differs. It would seem advisable to choose from this variety of terms some one which shall be restricted to a fever characterized by certain diagnostic symptoms, and exhibiting a uniform lesion.

The complaint under consideration does display this uniformity in anatomical lesions; atleast we have the authority of Mr. Louis, and certainly his assertions and opinions are entitled to great respect; as to him we are indebted for the distinction of this from other febrile affections.
In Europe it is classed as continued fever in no wise differing from Typhus except in grade. There is no doubt about its being a continued form of fever; and it is also true that it has many symptoms in common with Typhus; still the lines of distinction between the two are strongly drawn.

The principal lesion consists in the inflammation and ulceration of a portion of the digestive canal. This remarkable diversity was formally entirely denied by English and continental pathologists. They denied the uniform existence of any such lesion; it might exist in some cases but then it was a mere complication of the one type of fever to which it was supposed to belong. Dr. Watson one of the most accomplished physicians of his time and one whose writings compare favorably with our best authorities, even he, in the first edition of his "Practice of Medicine"

entirely denies the existence of any such affection.
The enlightened man of science is always open to conviction. It is only the ignorant who refuse to be convinced, for the simple reason that it does not accord with their first impressions or preconceived notions.
Such men not only refuse to listen to others, but also object to examining for themselves. This should never be the case with the medical man.
We are indebted to additions made in every age for the perfection thus far attained in the science of medicine.

The subject is not yet exhausted and probably never will be. Every year new theories are advanced, examined, accepted as facts and valuable acquisitions to our present knowledge, or thrown aside as worthless and unable to bear the close scrutiny to which they are first subjected before being received as truths.
Accordingly we do not find Dr. Watson resting satisfied with the mere denial of the fact: on the contrary he goes diligently to work to examine the evidence, and either to fortify his assertion with

new and stronger arguments, or prepared to acknowledge his error if it be one. Once with such good success did he pursue his studies, that in his last edition he not only gives a most excellent discription of typhoid as a different form of fever from typhus, but also says that they are as distinct the one from the other as scarlet fever and small pox.

In a work entitled a "Treatise on fevers according to the principles of the new medical doctrines," by "F. G. Boisseau" in which under the head of Humid Ady-

-namic fever the author gives a description of a fever which is undoubtedly the "Typhoid affection" of Louis, and "Enteric fever" of Wood, he enters into a minute description of the various abnormal conditions found after death from Adynamic fever. The author says "In the variety to which I have given the name of "Humid Adynamic fever, whether it has, or has not, been accompanied by one of the phlegmasia I have just pointed out, there is most always unequivocal evidence and sometimes very profound traces of gastritis

of enteritis or of gastro-enteritis."
Further on, he states that these inflamed and ulcerated patches are most frequently found near the termination of the small intestine near the ilio-coecal valve.
But notwithstanding many pathologists seem to have had their attention attracted by the diseased condition of the intestinal canal in a certain form of fever, still to M. Louis belongs the honor of first describing the anatomical changes found on post mortem examination and the symptoms which characterize them during the life of the patient.
He considered it a distinct disease

and gave it the name of "typhoid affection." This appellation in the is, in the opinion of Dr. Wood, is unfortunate. He says the affection is not essentially typhoid, and this no doubt is the fact, although a large number of cases are inclined sooner or later to assume a condition which we recognize, when supervening on other complaints as a "typhoid condition," and for this reason if no other the nomenclature should be changed. A great variety of acute affections are liable to present, during their course, symptoms of a typhoid character. For example we have a low grade of pneumonia

which presents this prostrate condition of all the powers of life which is designated as typhoid. Again any case of pneumonia sooner or later in its course depending upon the strength of the patient at the time of the attack, and the violence of the disease, may present symptoms of extreme prostration, requires supporting measures. This equally is a typhoid condition. The same may be said of almost any of the acute diseases.

The question then arises are we to consider them as cases of the true "typhoid affection" of Louis? Not by any means: it has no connection

with that peculiar disease except in similarity of some of the symptoms. The term "typhoid condition" or symptoms, as applied to a recognized form of a large number of diseases, either accompanying or supervening at some period of their course, is a very descriptive and condensed form for expressing a variety of symptoms and would not be at all objectionable if restricted to such cases, and not applied to another complaint which it only serves to confound and thereby defeat the great purpose of all nomenclature that of simplifying and conveying some definite meaning.

For these reasons the term proposed by Dr. Wood seems the most applicable. Enteric is derived from the Greek word enteron signifying intestine: its applicability is at once seen. Enteric fever seems to be restricted to no particular part of the known world, but is met with more or less frequently every where. It exhibits in miasmatic districts when complicated with the fever endemic to such regions, a tendency to assume an intermittent character, which may complicate but not change the course of the primary disease. This is also true in regard to its complication with other affections. It is a complaint which runs a def-

inite course, and which our best directed efforts seem unable to check. It is generally ushered in by premonitory symptoms which may last for a longer or shorter time. The patient is languid and has a disinclination for mental or bodily exertion; has pains in the back, limbs and head. These symptoms go on increasing in violence, till the complaint is fully formed. This increase is often so gradual that the line of distinction between the precursory stage and the first stage is not well marked.
In some cases the first diagnostic mark observable is a diarrhoea or a tendency to it made apparent

by the readiness with which cathartic medicines act. This is not common in the commencement of other febrile affections: generally the tendency is to the opposite of this. A variety of symptoms make their appearance, many of which are met with in all fevers: therefore we will not delay long on them.

The fever is fully formed with accelerated pulse, flushed face of a purple or dark hue, heat of the skin, headache, commonly over the forehead, loss of appetite, thirst, and a feeling of helplessness. The tongue is coated with a white fur and moist. Often thus early the diarrhoea is copious, the urine

scanty and high coloured.
At this time, in some cases epistaxis makes its appearance, though in many cases this is not observed till a later period; although the quantity is generally small and of itself of little importance except as a symptom highly characteristic of the complaint.
The pulse at this stage is frequent, with some strength. The patients mind is apathetic, but not delirious; along with this there is a remarkable expression of countenance, and at the same time a dark or dusky hue of the face; although none of these are as remarkable as in typhus. In some cases, during the

first stage, the fever exhibits some tendency to a remittent character, but this is probably owing in the majority of cases to its complication with bilious fever: and when this is not the case the tendency speedily gives way to a continued form.
Along with the above symptoms there is a general prostration of the whole system made very apparent by the headache and a feeling of soreness throughout the body. All these symptoms continue with marked increase in violence: pulse become more frequent, and loses some of their strength: pain in the head troublesome: diarrhoea

often copious giving evidence of the irritation within the alimentary canal: weakness more marked, and in the course of a week the disease is considered to have reached its second stage. The symptoms now become prominent: The tongue assumes a dry and roughened appearance in the centre, while the tip and edges are often moist, smooth, and red. The abdomen is distended and hard, and on percussion is found to be tympanitic. This latter symptom is of great importance, and should always receive the attention of the physician. The distention is owing principally to the presence of gas in the colon.

at this time delirium is apt to supervene, although not often of a violent character, still of a more active type than is ordinary in typhus.
Another important symptom which is observable sometimes early in the second stage, at other times not until a later period, is the rose coloured eruption so characteristic of enteric fever, first seen on the abdomen, then on the breast, and occasionally spreading to the extremities and face. It consists in a minute rose coloured eruption resembling flea bites, slightly raised above the surface and disappearing under pressure. These are not seen in all cases; some

time the fever runs its course without them. They vary greatly in number, sometimes only a few are seen again they are innumerable, making their appearance in successive crops, each lasting two or three days, fading and replaced by others. An eruption marks its appearance in typhus, but differs from that of enteric in many respects. It is of a darker hue, is not raised above the surface, is not confined to any particular part of the body, does not disappear, or at least, is but slightly affected by pressure and is in malignant cases true petechiæ. Generally at a later period sudamina are observed situated

on the neck and chest particularly about the axilla and groin: but these are not peculiar to this disease, but are equally common in other febrile complaints.

We have already spoken of the typhlitic condition of the abdomen, the patient feels pain in the right iliac region, which is greatly increased on pressure, this is due to the inflamed and ulcerated condition of the glands of Peyer. If the cases is to end unfavorably, the symptoms just described are increased in intensity.

A complete typhoid condition is set up: the patient is extremely weak, as he lies in bed on his back

he slides down from want of sufficient muscular exertion to sustain himself in a proper position. The pulse is very weak, sometimes intermittent: tongue dry, brown, or black, and if required to protrude it, he does it with great difficulty if at all: and the tongue trembles with the effort. Skin hot or hot in some parts, cold in others, and covered with a cold sweat.
Low muttering delirium, catching at imaginary objects in the air, picking at the bed clothes, ringing in the ears, hardness of hearing, occasionally amounting to deafness: involuntary evacuation of the fæces, and death.

The description just given is applicable to the most severe: in the majority of cases, the fever runs its course without displaying many of the above symptoms. In malignant cases, if the patient recovers, the convalescence is slow, the tongue cleans itself gradually or throws off its fur in large flakes, leaving the tongue smooth and red. This latter mode of cleaning is, in the opinion of Dr. Wood indicative of the great amount of injury done to the system, and as a natural consequence the convalescence is slow,

difficult, and liable to relapse. Perforation of the bowels is not an uncommon accident, and is generally fatal, the contents of the intestines being discharged into the peritoneal sac, giving rise to peritonitis. This may occur at any time after the first week: we are warned of the accident by the signs of peritoneal inflammation, rigors, intense pain in the abdominal region, vomiting, pulse very frequent and contracted, (a condition very characteristic of peritonitis) death preceded by collapse of the circulation. Mild cases

are not exempt from this danger, but on the contrary seem more liable to it, probably because all the symptoms have been obscure and therefore have not attracted the attention of the physician. It is particularly apt to occur just as the patient is entering on a convalescent condition. Enteric fever is liable to a great many complications, which add materially to the danger. Often early in the course of the disease, the patient is troubled with a cough and on examination evidence of bronchitis is found.

Pneumonia is common, sometimes in an acute form, at others in what may be denominated passive. This latter form arises from the force of gravitation, the extreme vessels of the lungs being unable to act with sufficient force to expel their contents, and thus giving rise to local congestion in the most dependent portion of the lungs. When the condition just described is found to have supervened, it is a symptom of grave import, as it gives evidence of the very low state of the vital powers.
Perforation of the intestines which permits the escape of their cont-

-ents in the cavity of the peritoneum giving rise at once to acute inflammation of that membrane. When this has occurred, the hope of recovery is very small. In some cases there is a tendency to inflammation of the brain. In miasmatic regions it often displays a tendency to a remittent form, and is in fact, sometimes mistaken for bilious fever. Like all febrile affections, the lesions found after death from enteric fever are numerous. All portions give more or less evidence of the ravages of disease. Liver, spleen, heart, lungs, brain and its membranes, and stomach,

all have exhibited signs of inflammation. But as already remarked, these are common to all fevers. The only lesion which is regarded as peculiar to enteric fever is the diseased condition of the glands of Peyer, situated in the ilium; they consist of circular or oval patches 25 or 30 in number from 1/2 to 4 inches in length, and situated opposite the mesenteric attachment of the intestine: their long diameter parallel with that of the intestine: they have no excretory duct. These glands are found in various states of disease: some only slightly raised, and reddened, others inflamed: while

another patch has undergone ulcer-ation and softning. M. Louis observed in fifty subjects examined by him, who died after presenting symptoms of typhoid fever, that these patches in every case were more or less reddened, thickened, and ulcerated, "in an extent varying from one to eight feet." The mesenteric glands opposite to those of Peyer are generally found diseased. The same is true of the solitary glands, which are scattered along the alimentary canal, though to a less extent. The causes which give rise to this form of fever do not seem to be well understood. By some

it is attributed to contagion. This experience proves incorrect. Again others have ascribed it to malaria. This is equally a mistake. In fact, no very satisfactory explanation has as yet been given.
In mild cases the diagnosis is often obscure, but the occurrence of some of the following symptoms will serve readily to distinguish it from other affections. The disease is one which generally makes its attack slowly, gradually increasing till fully formed. Early in its course, there is diarrhoea or a tendency to it, the occurrence of epistaxis, expression of the countenance, rose spots, typhy-

initic condition of the abdomen, dry tongue. Another interesting symptom is a peculiarly irritable condition of the muscular tissue which springs under the finger on being pinched. The following valuable table was compiled by Dr. Hail of Boston (observations on typhoid fevers of New England)

	Typhoid Fever cases	Typhoid Fever per cent	Other acute disease cases	Other acute disease per cent
Whole number	197 =	11	159 =	11
Meteorism	130 =	66	9 =	6
Spleen felt	19 =	9	0 =	0
Rose Spots	177 =	90	0 =	0
Albumina	75 =	38	8 =	5

We already remarked enteric fever runs a regular course and any attempt to cut it short by treat-

-ment will in most cases be worse than useless. To watch the patient closely and meet the indications as they arise, is the only safe plan. Notwithstanding the tendency to diarrhoea, it will often be advisable to administer a mild cathartic which will relieve the bowels of any irritant matter that may be lodged there. When the fever is fully established, cooling diaphoretics, and in cases which exhibit considerable force of the circulation, small doses of tartar emetic may be given. This latter agent is second to none in its power over the action of the heart, and is

therefore very appropriate when there is a tendency to local inflammation of important organs. General depletion by the lancet is recommended by some: this is rather a hazardous experiment, when we consider the strong inclination to assume a low form. Local depletion by cups, or leeches, is often very beneficial. When there is congestion of the vessels of the head a few leeches applied will relieve the pain and fulness, although often a towel wet with ice water and laid over the forehead will give the patient great comfort, and will be all sufficient. Cups or leeches applied over the right iliac region will be advisable: especially when there is

tenderness on pressure, they should be followed by a large warm poultice. If active inflammation of the lungs should supervene, topical bleeding must be resorted to, and followed if not strongly contraindicated by the great antiphlogistic remedy mercury, in small doses so as to affect the gums slightly: its action requires close watching. Nervous symptoms must be met by nervous stimulants; care should be observed in administering opium when there is danger of inflammation of the brain or it's membranes but when this danger does not exist, it is a most efficient remedy: either by its-self, or combined with ipecacuanha:

and if necessary some preparation of mercury may be added. Should hemorrhage become exhausting, astringents must be given.
In bowel places great reliance in the oil of turpentine freely administered; when there is danger of perforation; he says the oil acts as an attractive to the inflamed and ulcerated patches, he thinks no other remedy has succeeded so well in his hands. It should be given in small doses suspended in mucilage of gum arabic, and often repeated. Typhoid symptoms require to be met promptly by supporting measures Carb. ammonia, wine whey, pure wine,

brandy, and essence of beef. Should perforation occur, the free use of opiates will be necessary. Throughout the disease the bladder must be often examined, as it is liable to become distended with urine. Whatever the treatment, the tendency to assume a low form should always be remembered. Great attention to cleanliness and ventilation is required, as this will have much influence on the success of any treatment. The patient must be carefully watched during convalescence, or some slight imprudence in diet or exposure may bring on a relapse, which would prove fatal in his weakened condition.

An Inaugural Dissertation

On

Cholera

[illegible]

[illegible]

[illegible] Faculty of Medicine

of the

University of Maryland

for the

Degree of

Doctor of Medicine

By

Eugene Clemmer Bennett

of Maryland.

The disease which I am about to describe belongs to that numerous and complicated train of diseases which appertains to the highest function of visible beings; the possession of which emphatically distinguishes animals from plants, and the perfection of which as emphatically distinguishes man from all other animals: It is a disease of the nervous function. All these diversities of vital energy are now well known to be dependent on the organs of the brain, as the instrument of the intellectual powers, and the source of sensation and motion. Though, from the close con-

nexion and synchronous action of various other organs with the brain, and especially the thoracic and abdominal viscera, such diversities were often refered to several of the latter in earlier ages and before anatomy had traced them satisfactorily to the brain as their fountain-head. And of so high an antiquity is this erroneous hypothesis, that it has not only spread itself through every climate on the globe, but still keeps a hold on the colloquial language of every people; and hence the heart, the liver, the spleen, the loins, and the bowels generally, are, among all nations, regarded either literally or

figuratively, as so many seals of mental faculties or moral feeling. We trace this common and popular creed among the Hebrews & Arabians, the Egyptians & Persians, the Greeks & Romans; among every savage, as well as every civilized tribe; nor is there a dialect of the present day that is free from it: and we have hence an incontrovertible proof that it existed as a doctrine of general belief at a time when mankind, few in number, formed a common family, and were regulated by common notions.

The study of anatomy, however, has corrected the loose &

confused ideas of mankind upon this subject; and while it distinctly shows us that many of the organs popularly referred to as the seat of sensation, do and must, from the peculiarity of their nervous connexion with the brain, necessarily participate in the feelings and faculties thus generally ascribed to them, it also demonstrates that the primary source of these attributes, the quarter in which they originate, or which chiefly influences them, is the brain itself.

Hence we steer clear of former systems: we have nothing of the mystical archetypes of Plato,

the incorporeal phantasms of Aristotle, or the material species of Epicurus; we are equally without the intelligible world of the Greek schools, and the innate ideas of Des Cartes. My subject, however, comes within the scope of man and the higher classes of animals alone; for, as the scale in animal life descends; the organ of a brain is perpetually diminishing in its bulk, till at lenght it totally disappears, and its place is supplied by other fabrications.

But the particular disease to which I allude, and that which I have chosen as the subject of

my thesis, is Chorea. Having enjoyed several opportunities of witnessing the symptoms, course and duration of this disease, I have concluded to write upon it, hoping, that in my feeble attempt, it may prove acceptable to those, to whose examination, it is to be submitted.

Chorea.

The term chorea from χορος, "chorus" "coetus saltantium," is comparatively of modern date in its application to the present disease, nor is it easy to determine who first employed it. It was at first more limitedly denominated, chorea sancti viti, under which limitation it occurs in Sydenham, and is still known in popular language, being called in colloquial English, St. Vitus's Dance, and in colloquial French, Danse de St. Guy. According to Horstius the name of St. Vitus's Dance was given to this disease, or, perhaps, more probably

to a disease possessing some resemblance to it, in consequence of the cure produced on certain women of disordered mind, upon their paying a visit to the chapel of St. Vitus, near Ulm, and exercising themselves in dancing from morning till night, or till they became exhausted. When the disease made its anual return, all that was required, was to make another pilgrimage to the shrine of St. Guy, where they were miraculously healed. In Galen, chorea seems to be included under a disease which he calls Scelotyre, literally, "cruris turba a perturbatio";—

"commotion of the leg." Linnéus and, after him, Macbride, from the epithet of Sanctus, as applied to chorea, on a belief that such affections are induced by the immediate agency of a superior order of beings, applied to it the name Hieronosos, or "morbus sacre" — a name, however, which by earlier writers, was appropriated to convulsive fits.

Chorea is a disease belonging essentially to the nervous system, and of a spasmodic kind; characterized by involuntary muscular contractions without loss, entirely, of the power

of the will. In its common form it is not as serious as many other nervous diseases; but is always a very unpleasant affection to endure, and sometimes assumes a dangerous and even fatal character. Irregular and involuntary clonic contractions of some of the voluntary muscles, is one of its prominent symptoms. These, however, are not wholly withdrawn from the government of the will. In Epilepsy, with convulsive spasm, we have temporary interruption of consciousness and of volition, and a suspension of the mental functions.

In Tetanus we have rigid spasm, the mind clear and free; volition not affected, and the muscles which should obey the will, are held and governed by some stronger and overruling power. But we have a different state of affairs in Chorea. Consciousness suffers no loss, while of volition we experience no defect. The movements of the body can be performed in some degree as ordinarily, or sometimes under the direction of the will: some power, opposing the will, wantonly interferes, it would seem, to excite them when not needed, to render their actions unsteady and imperfect, to

arrest the natural movements, and give a new direction to the limbs, and to cause the patient to gesticulate like the merry Comedian in some of his favorite characters.

These grimaces apparently so absurd, occur not in paroxisms, but continue during the whole course of the day, sometimes for weeks together: but as a general thing during sleep they cease, but not always while the senses are wrapt in sleep, are the agitated limbs quiet.

The disease begins insidiously but is sometimes preceded by gastro-enteric derangement,

such as, irregular appetite, constipation, swollen abdomen &c. Depression of spirits and other signs of nervous disorder often precede the attack. The first unusual movements are, often seen, in some part of the body, as the face, shoulders or the hands; the patients making ludicrous grimaces, shrugging the shoulders or incessantly working with the fingers, and perhaps incurring reproof for behaving thus, as if the motions were voluntary. But they soon prove to be beyond the control of the will. These irregular muscular actions increase till the muscles of the whole body,

become more or less affected, in which state the head, trunk and extremities are in almost constant motion. The is moved grotesquely upon the neck: the limbs execute diversified, meaningless gesticulations: and muscles of the trunk contracting so irregularly & in such quick succession as to make the patient appear exceedingly fidgety, without changing his position. If the will is exercised to control them, it often gives rise to a curious mixture of the regular and irregular muscular movements: which seem to be produced by two opposite forces, but as a general thing, unless the disease be violent, the will is sufficient to

control them in a measure. The patient, though unable to write or sew, or to perform any other mechanical movement of a nice or delicate character, can ordinarily convey food to the mouth or move from one place to another, though, in accomplishing the former object the arm is jerked about in various directions before it reaches its purposed aim; and in performing the latter, the body often makes a zigzag movement with a sort of hitching gait, as if one foot were dragged after the other and the patient sometimes falls. The muscles of the faces sometimes participate in

these morbid actions; the tongue protrudes between the lips; the patient stammers while speaking; and deglutition is not unfrequently performed with difficulty. If the case be very violent, the patient may be unable to retain the erect posture, and is forced to lie down.

I knew a young Surgeon Dentist, who was terribly affected with chorea: exhibiting those jerking & shaking movements at ordinary times. While operating, or at anytime when the attention was strongly attracted, was perfectly free from any such gesticulations. A very remarkable feature in his case was

that he would moisten his fingers with his tongue, and at the same moment catch and shake the skirts of his coat: and this he would repeat incessantly. Not long since he was married; and twas said that he, in response to the banquet of love, with his fancy's wild imagination filled with matrimonial felicity, marched without a foolish movement or, a faltering step, to the hymenial alter, knowing that to fail, or to practice his meaningless gesticulations, or to act the merry Andrew, would be a blasting sirocco to his fondest hopes.

All authors seem to be agreed that one sine may be

more affected than the other, and that one side alone may be affected, I have seen one case, at least, presenting this phenomenon. The muscles in this disease are seldom, if ever, in a perfectly quiescent state, except during sleep, when the motions, as I have already said, usually cease, not entirely, but are very much diminished. But sometimes they are so incessant as to interfere with sleeping. These irregular motions are often aggravated by any emotion of the mind: and it has generally been observed that the patient is worse when conscious that others are looking at him.

Chorea is a disease that is seldom attended with bodily pain, though it has sometimes been known to be attended with pain in the head. The bowels are generally constipated and the discharges, when affected, are often unhealthy.

The appetite is sometimes found to be natural, sometimes morbidly craving, deficient or capricious. There is no fever. Writers have observed the singular fact that there is much less sense of fatigue in consequence of the incessant muscular movement than would result from an equal amount of it under the direction of the will. The tem-

fer is more excitable, capricious & apprehensive than in health.

The patient often evinces various nervous disorders, similar to those of Hysteria. He weeps without apparent cause: is gloomy or apathetic. It is often associated with Hysteria, when it attacks females about or beyond the age of puberty.

The course of Chorea is not always uniform; if the treatment employed be appropriate, it may end in a few days; but if inappropriate, or subjected to no treatment, it may run on for months or years. It will no doubt in a

vast majority of cases, sooner or later, cease spontaneously. If of long continuance, it is thought to weaken the powers of the mind, or, according to some authors, it induces imbecility, epilepsy, paralysis &c.. But the truth is, I think, that these affections, when they occur, are merely effects of a common cause with the disease we are now considering, and not the results of it. Chorea is sometimes confined to a single part, as a leg, the face, or an arm; and the patient, whose general health does not seem at all to be impaired, is unable to prevent making the most

unmusical movements of this part, in such a manner as to subject him to mortification.

I once knew a Judge, the muscles of whose face were affected with Chorea: a witness on the stand, being interrogated by the attorney, suddenly stoped, and pointing to the Court, said to the lawyer, "if you will stop that man making faces at me, I will go on."

The late Mr. John Pinter of the Foundling Hospital, was for many years severely afflicted with the disease, now under consideration. He was an excellent musician, a public singer, and a composer of music;

and this, too, notwithstanding that he was blind from birth. In walking he was led on account of the unsteadiness of his steps; but notwithstanding every exertion, his gesticulations were extreme, and so nearly approaching the antics of a buffoon, that it was often difficult for a spectator to suppress laughter. Yet in singing and playing, he had a perfect command over the muscles of the larynx, and of the fingers; his tones were exquisitly clear, and finely modulated; but his neck & head curvetted a little occasionally.

Doctor Wood relates a case in which a gentleman gives now

and then offence to strangers by making faces, as if mocking or laughing at them, when in fact perfectly serious & well disposed.

This partial Chorea is more difficult of cure than the general, & sometimes continues during life. This variety of the disease is probably, in many instances, rather the result of early habit confirmed by time, than a real disease.

Doct. Adison teaches that a bellows murmer of the heart may be observed in Chorea. This murmer accompanies the first sound of the heart. It is, perhaps, when heard, dependent upon an anaemic condition

of the blood; for it is well known that this condition of the blood will give rise to bellows murmer in the heart.

Dr. H Bence Jones has found the urine deficient in the phosphates, but with great excess of the sulphates and urea, ascribable to excessive muscular action. I have had an opportunity to study a case in which the urine exhibited the changes spoken of above. In fact it was a very well marked case, with many of the symptoms of genuine chorea. It was that of a little boy, about eight years of age, of decidedly nervous temperament, handsome form, with exceedingly

pleasing features. I never met with a child so intelligent, smart and shrewd. Often in his conversations, he has astonished me with his display of knowledge and sagacity. Nothing seemed to escape his attention, and subjects which one would suppose foreign to himself, so young, would be perfectly intelligible. But when the attack came on, his bright eye lost its luster and intelligence, and was changed to chaf sadness: his countenance pale, and expressive of vacancy and languor. Deglution was occasionally performed with difficulty. His stammering speach, unsteady gait, shrugging of his shoulders, and irregu-

lar contraction of other muscles, with his whimsical notions and desires, were prominent features of his disease. Often when spoken to, or requested to move, he would point to his tongue, or other affected organ, and shake his head. The fidgety catching of the muscles, increased when spoken to, indicated the nervousness attendant upon the disease. Thus he ceased to be so attentive and communicative; and, in an irritable condition, his temper was easily disturbed. Inordinately sensative, he was easily stirred by new ideas and sudden feelings, and would readily pass, and upon slight occasions, from one mode

of mind to another. His case, in the hands of an Homeopathic quack, being subjected to the treatment of that unfounded dogma, ran on unabated for two or three months, when a Physician was called in, which dated the period of his improvement, and, finally, the establishment of a cure.

The diagnosis of Chorea is seldom difficult; being sufficiently distinguished from all other diseases of the brain and spinal marrow by the absence of rigid spasm, delirium, coma and fever: with the whimsical and ludicrous movements and partial control

of the will. Palsy, Hysteria and Epilepsy are however, in various degrees complicated with cases of chorea; and to determine how much belongs to the one or other affection, is not always an easy matter. In uncomplicated cases of chorea, there is no trouble in diagnosing, as it is perfectly plain; but the disease may be connected with the various neuroses in such a manner as to mask the original nature of the disease.

The anatomical lesions discovered in cases that have proved fatal, have thrown no light upon the pathology of the disease.

Entirely negative are the evidences which anatomy affords of the nature of Chorea. In cases not complicated with other diseases, after death from the disease or from some accidental cause, those well acquainted with pathological anatomy, after careful search, have pronounced the brain and spinal marrow perfectly healthy. 'Tis true that others have found lesions, as serous effusions into the meningeal cavities of the spinal marrow, injection of the spinal marrow itself, softning &c.: serum in the ventricles of the brain and its membranes, tumors and calcarious concretions in the encephalon &c.. In

rous, disease discovered in thoracic viscera: the sigmoid or auriculo-ventricular valves: vegitations on the edge of the mitral valve &c.. The abdominal viscera, the liver, spleen and kidneys have been discovered by some to exhibit disease. Also congestion of the ovaries, and evidence of the existence of undue uterine excitement. But what inference can be fairly drawn from these statements? Some of the morbid conditions revealed by dissection had probably no connexion with the chorea at all, but were obvious complications, the results of disease altogether independent of the Chorea in their origin.

Some may have aided its accession by greatly increasing that irritability and mobility of the nervous system, which subjects it readily to the exciting causes of various ailments. Or they may have operated upon the efferent nerves of the spinal cord as excentric excitors of the irregular movements, in constitutions already predisposed to chorea. It is asserted by Des Lever and Hughes, that in seven cases, women were affected with chorea while pregnant, and ceased spontaneously after parturition; which may be a support to the above last supposition.

The causes of chorea

may be divided into the predisposing and exciting. The predisposing causes are often transmitted from parents to children, consisting in a morbid mobility or excitability of the nervous system, or what is denominated the nervous temperament, may be considered as a predisposing cause. Independant of these a predisposition may be engendered by certain habits of life, and especially masturbation; or anything that is calculated to debilitate the system, or impair the innervation, such as disordered digestion, deficient nutrition, depressing emotions, and excessive study. Age has great influence

over the disease. The two extremes of life are almost exempt, and by far the greater number of those attacked are between the ages of six or seven, and eighteen, that is, between the second dentition and puberty. Notwithstanding there seems to be no period of life perfectly exempt: but it is probable that when it attacks persons beyond the age of puberty, it is more or less complicated with other nervous diseases as hysteria, epilepsy, &c.. The changes impressed upon the human system about puberty, seem to favor the attacks of chorea. Sex has also a powerful influence; females

have it far more frequently than males. Statistical reports show that not less than two thirds, or even three quarters of those attacked are females. Climate seems to exercise very little influence over it. In fine whatever tends to debilitate the system, and to impoverish the blood, may be considered in connexion with age and sex as predisposing to chorea, through the various disturbances which such a state of the system occasions in the nervous centres.

Among the exciting causes of chorea may be reckoned, disturbing emotions; especially terror, excessive excitement of all kinds whether men-

tal or bodily; excessive study; ex-
centric irritations, as those of denti-
tion, decayed teeth, disordered stom-
ach and bowels, hepatic derange-
ments, worms, uterine diseases &c.;
suppression of menses, repelled cu-
taneous eruptions and translated gout &c.

In regard to the na-
ture of chorea very little is known
except that it is a disease of the ner-
vous centres. That the morbid condi-
tion upon which the disease depends
is not organic, is proved by the or-
dinary symptoms of such lesions
and by the evidence of dissection.
There are various hypotheses in re-
gard to the essential nature of the

disease; but the following is probably correct, that it is a perversion of that function of the brain through which the will acts; rendering it partially subservient to other powers than the legitimate one. It has frequently been found associated with pericarditis and endocarditis, and the complaint has been ascribed to a rheumatic constitution; but the murmers that have been heard are I think owing to the anaemic condition of the blood which is a frequent attendant on chorea.

Uncomplicated chorea is rarely ever fatal. Though

cases have occured in which the system has been debilitated to an extent incompatible with the further continuance of life by the violent and incessant agitations which characterize the disease or when some vital function has been suppressed sufficiently long to occasion death. In cases complicated with other diseases it frequently happens that instead of the chorea, it is the accompanying disease that is dangerous.

It is probable that the majority of cases would terminate favorably without medicine: but proper treatment, timely employed, will undoubtedly shorten the disease.

The duration, when properly treated, may be stated on the average from two to six weeks: but it sometimes runs on for years, or indefinitely, in spite of all remedial means that may be employed; and, in this condition, in a chronic form, it is undoubtedly perpetuated, in part at least by habit. Relapses in this disease frequently occur.

The treatment of chorea embraces two definite objects. The first, is to remove all obvious disease which may exist independently of the involuntary movements.

and secondly, to give vigor to the nervous system, and equalize its actions. It was Sydenham's practice first to bleed and purge his patients, and then to administer bitters, aromatics and antispasmodics, with the view of strengthening the nerves. After his time, the bloodletting and purgatives fell into disuse, until the publication of Dr. Hamilton's well known work again brought the latter deservedly into favor. Constipation should be promptly corrected by cathartics: they are useful, not only by removing a source of irritation from the bowels, but also by acting revul-

sively from the brain, and by depletion in plethoric cases. Some discrimination should be exercised in the choice of the medicine. Should the system be plethoric, sulphate of magnesia, or one of the saline cathartics, senna & salts, or jalap and bitartrate of potassa, would best answer the purpose. Acid in the stomach would indicate magnesia; debility of digestion with dyspeptic symptoms, rheubarb; amenorrhoea, aloes or black hellebore; deficient or disordered hepatic action, calomel or blue mass.

General blood-letting is generally not indicated: but local bleed-

ing, in cases attended with headache, is very useful: especially called for by the existence of a flushed face, and a full strong pulse, indicating active congestion of the brain. Spinal tenderness would require cups or leeches to the tender spot, followed by repeated blisters, or antimonial pustulation. Amenorrhoea, if existing, should be treated by appropriate measures. Chlorosis or anaemia would demand the chalybeates.

For worms in the bowels, anthelmintics should be added to the cathartic medicine; and oil of turpentine, or oil of chenopodium would be especially applicable.

measures for fulfilling the second indication, should in general be employed conjointly with those which may demand attention in accordance with the first.

To give strength and equability to the nervous actions, tonics and antispasmodics are required. Of the former class, though sulphate of quinia is sometimes very efficient, the mineral tonics and preparations of zinc are, on the whole, the best and safest. The preparations of copper, silver and subnitrate of bismuth are recommended by some; but they have no superiority over those first mentioned, while most of them

are liable to act more harshly upon the stomach.

With the tonics, it would be proper to combine the use of one of the antispasmodics. Valerian has enjoyed much reputation in chorea; and will often act advantageously. Assafetida is highly beneficial in many instances, especially when the disease is associated with hysteria. Camphor & musk have also been recommended. Drs. Wood, Young, Lindsly and others have found our indigenous cimicifuga, or black snake-root, a valuable remedy in chorea. It may be given in the

dose of half a tea-spoonful of the powdered root three times a day; or from one to two drachms of the saturated tincture, or a wine-glassful of the decoction, and continued for several weeks; the dose being gradually increased until it produces some sensible effect, as nausea, headache, vertigo, or disordered vision.

One of the most effectual of the tonic remedies is the shower-bath. If the patient be of a feeble constitution, the water may at first be used tepid; by degrees it should be used cold. This remedy should be employed every morning, or

every other morning, early, as soon as the patient gets out of bed. Sea bathing is a highly useful remedy; and the sulphur bath has been used with asserted advantage by the French. Fresh pure air, and moderate exercise are very useful, especially towards completing a cure. All these advantages, as well as that of pleasing occupation of the attention, may be gained by a visit during summer to the sea shore, or some one of the sulphur springs; and this measure should be resorted to after others have failed, or to confirm convalescence in those whose general

health may be delicate, and constitutional tendency to the disease strong. To maintain the mind in a cheerful state, and the temper free from excitement, are points of some importance in the treatment of chorea. In relation to the diet, the only general rule is that it should be accommodated to the state of the system. If this be full and excited, a vegetable or milk diet would be advisable; but in general the patient may be permitted to use the ordinary food, taking care to avoid indigestible and accescent substances; and temperance in all

things observed.

Many other remedies besides those spoken of above, have been employed in chorea, and some with more or less apparent benefit.

All the narcotics have been recommended; belladonna, stramonium, hyoscyamus and hydrocyanic acid have been chiefly employed. Opium has enjoyed its day of reputation, and chloroform has had its advocates.

Emetics occasionally repeated, tartar emetic, preparations of arsenic and iodine, oil of turpentine, electricity or galvanism,

gymnastic exercises and strychnia are remedies in favor of which respectable authority might be cited.

A physician of Dublin has cured a case by the application of splints.

Many plans of treatment have been adopted by practitioners; but all have come to the conclusion, that purgatives, followed by antispasmodics and tonics, are most useful.

The foregoing sketch, though incomplete, is as elaborate

as time will permit me to give, or the limits of a thesis allow. Several cases of chorea having come under my observation, the knowledge obtained from which, together with that derived from text-books, I have offered this production without further assistance. I do not claim originality for this my first composition on a subject connected with medical science: but in my faint efforts, I have aimed to be unlike the spider, seeking no materials from abroad, but spinning a web of speculative doctrine from within

myself — unlike the ant, collecting all things indiscriminately from all quarters to present in this essay: but rather like the bee, gathering crude materials from various sources, storing them up within the recesses of my brain and subjecting them to a careful examination by the faculties of my own mind, reserving what I believed to be true, and rejecting what I deemed false false.

In the views herein presented, I have not varied from the teachings of our learned Professor, Dr. Samuel Chew,

whose authority cannot be questioned. I trust you do not expect much, knowing that it is not from one who has had vast experience, but from one who is a mere pigmy in that exalted and humane profession which should not be looked upon as a business, but as a great Morality — not as a trade, but as a mission from God for the benefit of the children of men.

I now conclude my thesis. Such as it is, with its many imperfections and gross defects of omission and commission, I

now place before you; hoping that if it be of no service, nor contributes in any measure to the correct elucidation of this disease, it may yet subserve the purpose of inducing those who follow me in complying with the statutes of this Institution in the writing of a thesis, to put forth a better effort in accomplishing that which they have to do.

With many thanks to the kind Professors who have labored with untiring zeal in teaching me, with others, those precepts which are to guide me in the practice of that

profession the sole object of which should be to administer to suffering humanity: and where ever I roam — in whatever country or clime I may be cast — while I have a heart that beats, it will beat with gratitude in recollection of the University of Maryland, which I shall ever be proud to recognize as my Alma Mater.

February - 1862. E. A. Vannort.

A Diagonal Dissection

of

Violets Squares.

Submitted

to

the Faculty of the

University of Wisc[illegible]

for the degree

of

[illegible]

of Philosophy

Diabetes Mellitus.

Diabetes Mellitus, is a disease consisting of a secretion of sweetness of the urine, with an augmentation in the quantity of urine, attended with great thirst and progressive emaciation; under the head of "Diabetes" some authors consider an affection consisting in an augmented flow of urine attended with progressive emaciation and thirst: but without that peculiar condition of the system which generates sugar. To this affection the name of Diabetes Insipidus is generally or now altogether restricted and the name Diabetes Mellitus

employed for that affection which has as its primary and diagnostic symptom the presence of sugar in the urine. The excessive diuresis in this complaint is an effort it is supposed of the glands which it eliminated. ~~Since the~~

Symptoms course and duration.

The symptoms which first arouses the anxiety of the patient and leads him to seek the advice of the Physician is a frequent desire to urinate, and the passage of a larger amount than usual of urine. The patient has a feeling of malaise: that is an indescribable feeling of weariness, inability-

sition and langour; a feeling said by some author to resemble very much that which precedes an attack of Bilious Remittent. There are dragging pains in the loins. The tongue is furred and the patient often notices a unusual taste in his mouth, thirst and a dense furred attend these symptoms. The excess over the usual quantity of urine voided in the first of the disease is generally slight, though it rapidly increases. Should treatment be instituted at this time and prove unavailing, or should the patient-

not have received medical aid the symptoms are become intensified. The thirst increases until it often forms the most painful part of the disease. The appetite is insatiable. The emaciation becomes extreme. The breath grows offensive. Tuberculous deposits are formed in the lungs. The bowels continue constipated. The skin is dry. The mind is impaired. The patient loses his memory and intelligence, and death closes the scene, ma. before it has been earnestly wished for by the patient, who finds his sufferings so insupportable, that

he eagerly wishes for the coming of that inexorable usher, whose shafts are so dreaded by all.

The quantity of water and food taken is enormous, ranging from Twenty-Five and Thirty pints being frequently passed in Twenty-four hours. It is said that the amount passed by the sufferer sometimes exceeds what is taken as food and water during the Twenty-four hours. Some cases are on record of considerably over one Hundred pints being passed in one day. but these cases are to be taken I think with that traditionary grain of

salt, "cum grano salis" or rather with a bushel "cum modo sal is." The specific gravity of the urine of diabetic patients is greater than in health, perceptible to the saccharine matter present. The urea is said to be always deficient. The unfailing symptom is the presence of sugar in the urine, this can not be found at all times. The tests for sugar will be given under the head of Diagnosis. Diabetes Mellitus is a fatal disease; sometimes running on for two three or four years often much longer. The patient generally dies of some intercurrent

disease or else of some disease superinduced by the prostration and the low state of the vitality of the system which is brought about by the excessive strain. Anatomical characters. Anatomical investigations into the pathology of this disease reveal nothing except that no condition of the body is found sufficient to explain the cause of the disease. We of course expect to find such changes as so severe and dangerous a malady will bring about. Thus we find in most instances the liver congested or inflamed. The alimen-

lung track may give signs of inflammation &c.

Nature.

The presence of sugar in the urine in this disease has engaged the attention of our best physiologists and pathologists for a long time. By laborious and carefully conducted experiments, it has been ascertained that in health sugar is generated in the liver and consumed by the lungs. This takes place even if the person has been fed on animal food, no sugar can be found ~~you~~ in the blood going to the liver, but it has been

detected in the vessels leading from that organ, it can be found in the right ventricle and in the pulmonary arteries, while the left ventricle and pulmonary veins do not receive any of it.
This sugar which is generated in health differs from the sugar found in the urine of diabetic patients in that the former is more readily decomposed by animal tissues. This has been proven I believe by experiments out of the body.
The latest theory that is, (and I believe it is the one most generally adopted) that the liver

is affected in some way (the precise pathological condition is yet to be learned.) so that it has lost its power of generating true hepatic sugar, and generates instead the vegetable glucose or diabetic sugar. the condition of the liver is such that the normal work of sugar is not secreted but an excessive action of the perverted function is going on. This glucose entering the circulation in too large a quantity and having lost the assimilation property of true Hepatic sugar is not decomposed in the capillaries or the lungs and passes off

by the urine, irritating the kidneys and causing them into excessive action. It has been found by some one that sugar is generated in the stomach of diabetic patients: in this experiment the patient was fed on animal food for a certain length of time, the contents of the stomach removed by the action of an emetic, and sugar found to be present by the usual tests. There is no explanation of this farther than that there is something present in the system and secreted with the gastric juice, which tends to the produc-

tion of vegetable glucose.
In some experiments it has been found that by irritating a part of the floor of the fourth ventricle called the calamus scriptorius, that the presence of a sugar very similar to true diabetic sugar could be detected in the urine a few hours afterward. The study of the true nature of diabetes presents an inviting field to the zealous and inquiring student of to day as when M. Bernard first commenced his investigations.

Causes.

The causes of diabetes are not well

known. The disease occurs more usually in middle life and it is comparatively rare in young persons. Some author says that the disease is ~~brought~~ more apt to occur in persons of scrofulous cachetic habits and those who have light reddish hair. The only case of the disease which I have ever seen occurred in a person with light reddish hair. This patient was past sixty years of age. The disease proved fatal in about three months. The patient never passed during twenty-four hours more than ten or twelve pints of urine.

The disease in this case was supposed to have been brought about by depression of mind, caused by the loss of dwelling house and furniture. All the usual remedies were tried in this disease without any avail. The patient would or could not be confined exclusively to an animal diet & death speedily followed. Duibeli's Bottles has been supposed by some unapparently with very good reason to be of an hereditary tendency. The exciting causes may be drinking cold water in excessive quantities when over heated,

reflected cutaneous eruptions, thus in the neighborhood of the loins exposure to cold and damp in fact anything that tends to depress vital activity may cause a tendency heretofore slumbering to be called into action.

Diagnosis. The diagnosis of this disease is very easy. There can be no possible reason for confounding this disease with necessive diuresis proceeding from other causes. We have tests which will infallibly detect the presence of sugar in the urine upon which the disease depends. If the physician in a case con-

fected to be diabetic mellitus discovers no sugar in the urine he should not at once conclude that the disease has been mistaken: on the contrary he should subject the urine once and again to the test in order that he may ~~be~~ not have the stigma of attending a fatal case of Diabetes Mellitus for diuresis proceeding from other causes.

The three principal tests, those spoken of chiefly in the text books are the Fermenting, Moore and Trommers. The fermenting test is nothing more than to add a quantity of yeast to

the urine suspected of containing sugar, and setting the mixture aside, subjected to a heat of seventy or eighty degrees. The presence of sugar is shown by the vinous odor proceeding from the alcohol and the effervescence caused by the escape of carbonic acid. This test has another convenience, that of showing how much sugar is contained in a given quantity of urine. The fermentation is allowed to go on in a closed vessel. The carbonic acid escapes into a tube provided for that purpose in which is placed a ~~gas~~ manometer

weight of oxide of calcium, by which the carbonic acid is retained, now if we know the quantity of carbonic acid given off by a certain weight of sugar during fermentation we shall be pretty sure of the result. Trommers test, is to add a solution of sulphate of copper to the urine then add excess of liquor potassa, by heating gently a red suboxide of copper is formed if sugar be present. Moores test consists in adding to ~~the urine~~ a quantity of the suspected urine one half as much liquor potassa, heating gently

and an orange hue is given to the mixture which depends upon the formation of a peculiar acid—the Melanic.

Prognosis. The prognosis of this disease is decidedly unfavorable; nevertheless we should not despair of effecting a cure in this disease especially if submitted to treatment in the early stage. Good grounds for hope may be felt if the symptoms abate, thirst give way, recessive diuresis restrained, quantity of urine in the urine diminished, but no case can be repeated or rather no case can be considered cured, no matter how

favorable the other symptoms appear until the sugar has fully and persistently disappeared from the urine. Most of the cases cured, die sooner or later from the effects of a second attack of the same disease and do what we will! unequally as the patient may guard against all exciting causes! The disease will appear only to be more formidable than before and unfavorable augury may be drawn if there is no moderation of the thirst, no abatement of the desire for food, if emaciation progresses, and above all if the saccharine quality of the urine receives no check.

Of course the danger is imminent and the case remains hopeless of organic disease of the spinal cord.

Treatment. The two chief indications in this disease are to prevent the further formation of pus and to reduce the excessive quantity of urine formed. To prevent the formation the most naturally remedy and the one which first suggests itself to the mind is to keep out of the urinal tract, unless out of which pus is likely to be generated. The best way to fulfil this indication appears to be an medicine an

vinal diet, to which may be added such vegetables as contain little or no substances out of which urea can be formed. Such vegetables are radishes & turnip tops, celery, spinage, cabbage, parsley and I believe water cress. It is much better to allow the patient a small quantity of these articles, since without them he can or will not submit to an exclusive animal diet. The salt meats & soups produce thirst they should not be allowed, highly seasoned food of course is to be strictly avoided. Eggs, fish, butter and oil are allowable and it is thought that the latter is an useful remedy

The physician will find it much easier to keep out of the stomach such articles as are likely to be converted into sugar than to alter that pathological condition of that system through which the sugar is generated; still there are some remedies which seem to do good in this way. The bitter tonics have been much used in this disease quassia, columbo, gentiane, sulphate of Quinia together with pills of carbonate of Iron are to be used with the stomach. The bowels are to be kept open and the state of all the secretions attended to: small doses of opium

and frequently at bed time rub
bed to relieve the secretions of
the skin. Alkalies have come into
vogue in the cure of this disease
They may be used in conjunction
with other measures.
In the second indication, it is
more effectual than opium, and
should be used to stop in the
first stages of this disease, and
if there is frequent vomiting or
will give a tendency to the skin,
ameliorate the pain & restrain in some
measure the vomiting. In the
disease which may run in the course
of a few days by Pustules. Mercurials
must be treated on general principles

Wm. Hill

Inaugural Dissertation

On

Dysentery

Submitted to the Board of Regents of Medical Faculty

of the

University of Maryland

For the Degree

of

Doctor of Medicine

By

William B. Wheeler

of

Manchester

Md.

Mosquito

There is no [illegible] more [illegible]
not in the South and West, than the mosquito
associated with the creation of beyond mind
it is however quite frequent in the
summer and autumn in other part
of the country.

The annual appearance of the mosquito and
its painful and dangerous character, has
already caused the attention of medical
men to be turned to its various nostrums
or quinines that have been promulgated,
both as to nature and cause as well as
to its Prevention.

Mosquitoes may justly be called the
"Sons of Armies" it follows in the
rear of those bodies, ever ready to seize,
and to spread devastation and [illegible]

in their ranks, frequently destroying the whole.

Though it is now being [illegible] slow than in former periods, it is treated with more success, and as rarely so an epidemic occur at least it does not reach to such an extent as in former years.

The weather and season of the year seem to have a great influence on the disease, it occurs most frequent in the tropical regions, warm days accompanied with cool nights, or rain after continued droughts, improper food, and wants; depression of mind or body, intemperance with impure air, seem to be the principal causes.

Malaria also has been said to produce it indirectly, anything that tends to debilitate the system, or in any manner derange the general health.

Dysentery is a disease many cases of a peculiar and severe pain, mainly confined to the bladder and rectum, occurring in paroxysms of tenesmus, such paroxysms is usually followed by discharges from the bowels of a viscid jelly like mucous or more sanguinous or muco-purulent matter; small in quantity but accompanied with pain straining and tenesmus.

The discharge may consist entirely of blood either fresh if recently poured out of the vessels or clotted or even

partially dissipated and patient gives it
was seen when on the return
sufficient time to admit of the exam-
ination. Fever varies greatly in duration
and intensity, occasionally it runs very
high, the pulse varies, may be
full hard and frequent; the skin
hot and dry, face flushed, the urine
may be universal diffused over the
surface but it is often confined to
the abdomen while the remainder of
the body is cool to the touch and the
extremities are [illegible]
patient complaining of frequent rigors.
The tongue is loaded and coated with
fur soon become dry and [illegible]
the fur is hot and parched the pulse

will generally be found quick and small
when the extremities are cold it
will feel weak and thready yet in some
instances the pulse is not much than
ever from its natural state. the appe
tite which is mostly lost in the com
mencing stages of the disease may how
ever be left to the patient for a few
days, but in these cases the food will
also be passed after a few hours in
an indigested state, the patient complains
of headache and great thirst, cold water
mixed; the pain which is often very
severe is generally situated in the hypogas
trium or one or both iliac regions. it is
usually increased on pressure and can
in many cases be traced [illegible]

the tract of the colon.

The tenesmus which is very distressing [illegible] [illegible] [illegible], [illegible] [illegible] [illegible] [illegible] ting in the thighs and legs which is relieved after each evacuation; the discharges from the bowels are horribly fetid and various in color and consistence with [illegible] [illegible] mixed with [illegible] [illegible] [illegible] brane, resembling pease soup [illegible] [illegible] [illegible] the [illegible] pus or of mucous membrane tinged with blood, the bowel is [illegible] in a constant state of protrusion in warm climates frequently a membrane is thrown off similar to the mucous membrane of the colon. Drs Mackintosh and Stillingall and others mention the same circumstance to have occurred.

Anuria is often present the irritation of the urethra being reflected to the bladder, this giving a great deal of pain to the patient some of the worst cases of [illegible] are with [illegible] ordinary symptoms of Diarrhoea finally the system becoming worn out to the disease, death takes place usually from inertia of the heart.

Dysentery may assume a chronic form and this it is likely to do in tropical climates. There is more oppression in the epigastric region, vomiting may take place, a yellow hue is diffused over the surface; the tongue and conjunctiva are lined; the urinary secretion may be merely increased or it may be in a-

lower condition, and so also, the disease may take a remittent or intermittent type when in one [illegible] associated with a disease of a [illegible] character.

Pathological Lesions

On examination of the mucous membrane of the cecum, the rectum is found very inflamed and congested, this extends to the colon also, the coats are thickened mortification and sloughing of the mucous membrane, having thin place, but in any case and [illegible] cases the ulceration may be very extensive; the [illegible] of the large intestines are enlarged and ulcerated; adhesions of the [illegible]

[illegible] omentum is
not unfrequently found adhering to the
colon; and the intestines occasionally
sloughing up ulcers, it is also greatly
diminished in size; often found thick
and interspersed with numerous vessels
turgid with dark colored blood; and cast
from the folds of the intestines are often
found agglutinated together and studded
with superficial ulceration; the small
intestines are rarely found to be much
[illegible] unless [illegible] [illegible] seem to
[illegible] to be inflammation of protracted [illegible]
the liver has been found congested and
sometimes abscessed [illegible] [illegible]
liver is affected the Gall bladder assumes
a villous form.

Prognosis

Of this malady
is comparatively easy the only disease
which it has any semblance is
Diarrhoea; both may be accompanied
by pain [illegible] tenesmus
and tenesmus but in Diarrhoea the consist
ency of faecal matter in Dysentery
there is often retention of the natural
feces in the [illegible]
towards voided in small spherical
lumps or scybala; again the mucous
which is excreted and the sanguinous
discharge form no necessary features of
Diarrhoea while in Dysentery they are
the most prominent and constant sym
toms. As to the contagion of this disease

[illegible] is great discordance of opinions in [illegible] sporadic form as it is now usually met with in our country; seldom spreads from [illegible] to person, but in the epidemic form which it has assumed it is no doubt contagious. Dr Cullen regards this disease as decidedly contagious.

Typhus may terminate in recovery, in the chronic form or in death.

When the disease terminates favorably we find a gradual abatement in the severity of all the symptoms the tormina and tenesmus diminish; the fever grows less; the discharges become less frequent the blood & mucous ejections disappear while the evacuations assume an more natural appearance [illegible]

[illegible] slowly, whereas [illegible]
[illegible] fully established.
Various has been the opinions in regard
to the treatment of this disease but as
it has been determined to be emphat-
ically an inflamatory disease; the anti
phlogistic plan has been adopted by
most intelligent practitioners.
To overcome the inflamation and ex
pel or destroy the cause, may demand
the earliest and most persistent atten-
tions in the mildest form. Bleeding
is rarely demanded but if pulse is
full and quick or hard [illegible]
[illegible] be [illegible]
repeated till the violence of the symp-
toms ceased.

[illegible] bleeding may be resorted to [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] general depletion would be improper, cups or leeches should be applied in the back of the colon; if there is much tenderness on pressure, their application is attended with marked relief and will often shorten the duration of the attack in [illegible] [illegible] it may be proper to resort to both the [illegible] [illegible] [illegible] the [illegible] [illegible] [illegible] removed the part should be covered with a light soft poultice or cloths wrung out of warm water often repeated, or a warm bath if convenient is often beneficial; A few leeches applied to the anus will often relieve the tenesmus.

Purgatives as a general rule should

ut is resorted to, as this may increase
the irritation of the bowels the application
of an blister to the
A mild laxative should be given as
castor oil ℥ss. combined with 30 or 35
drops of laudanum or ℥ss Sulphate
of Magnesia; aperients are indicated when
the discharge consists entirely of mucus
a grain of calomel combined with 8 or 10 gr
Ipecac may be given, the calomel is
specially useful when the hepatic secretory
function is disordered; combined with
Ipecacuanha and opium in pills; these
seems with pure [illegible]
Opium in full doses is the remedy upon
which Dr. Watson said he most depended
it not only relieves the suffering

g the patient and procures sleep; but
it also acts by diminishing the irrita-
bility of the bowels; to the irritating
substances they may contain; the pain
and suffering which is brought about by
the [illegible]
nally controlled by full doses of Opium
Rectal injections are very useful as those
composed of acetate of lead and lime
water or cold water and tincture of Opium
[illegible]
as shall be [illegible]
An vapor of Chloroform has also been
found useful, injected into the bowels to
overcome the tenesmus, the momentary irri-
tation produced by it being followed by
relief which in one case was said to have

continued for two weeks, with suspension of the passages at the same time and after the subsidence of the immediate [illegible] was [illegible] to be abated.

Tonics [illegible] in advanced stages of the disease, copaiba and oil of turpentine combined in an emulsion with laudanum are useful in advanced cases which are attended with ulceration when the disease is of a mercurial character peruvian bark or cinchonia sometimes should be given, subject to [illegible] very frequently.

Antisyphilitic and anodyne medication. oil of turpentine ammonia &c combined with camphor or laudanum [illegible] employed.

muscles over the abdomen should not
be pressed with [illegible]
at times a little morphia may even be
painted on the surface of the abdomen
the patient should be kept as much
as possible in a horizontal posture or with
the head but slightly elevated, standing
or sitting favours the gravitation of blood
to the inflamed organs and at times of
subject in, even in convalescence may
turn about a relapse of grave character
while at stool as little straining as pos-
sible should be allowed.
During convalescence the utmost caution
must be observed in regard to diet, it
should consist of the most [illegible]
nutritious substances and [illegible]

nutritious to sustain the vital strength of the patient, as long as inflammation in the colon should be kept as clean as possible. Beef tea or essence of beef, mutton chicken broth, or broth made from the meat of game, gruel, farina and other liquid foods must be most depended on until the disease is active, and as the patient recovers more solid food may be allowed, tonics as the simple bitters may be used in some cases very beneficial, as infusion of columbo, quassia, or gentian.

In an attack of inflammation there is always debility of the organ affected, which debility may be of considerable duration. Proper dietetic hygienic measures

could be continued some time after the action of the [illegible] ceased [illegible] tions.

Chronic form

Chronic Dysentery is known by the frequency and small quantity of the evacuations; which consist mostly of mucous and [illegible] with pus or blood; sometimes the pain is severe and there is usually some pain on pressure, though this may be absent; the pulse is generally somewhat increased in frequency; the tongue slightly furred sometimes in very protracted it is red smooth and dry or it may be aphthous; skin dry and hot; the bowels and spirits depressed occasionally the patient scarcely evinces any other sign

[illegible] sensibly to the local affection
[illegible] diminution of strength and more
or less rapid emaciation; this may [illegible]
especially if the disease is confined to
the lower portion of the bowels. The disease
may continue for months or years with-
out making any serious inroads on the
general health; but as a general rule, un-
[illegible] the patient is benefitted by treatment
[illegible] gradually emaciates the exhausted [illegible]
[illegible] with hectic, dropsy, or Peritonitis may supervene. Pathological lesions

[illegible]

[illegible] and redness or of a flushed [illegible]
[illegible] is frequently found in the
[illegible] of the ileum and

[illegible] observed in a state of [illegible]
and others may have completely cured
disease, whenever of the [illegible]
with the cause of [illegible] it is difficult
to account. The prognosis is generally unfavor-
able. Treatment

It will not [illegible]
necessary to take blood in any manner if
there be tenderness on pressure a few cups or
leeches may be applied [illegible]
the application of some rubefacient or mustard
should be given to relieve the upper portion
of the bowels, at bed time Opium combined
with calomel or blue mass which should
be pushed until it affect the system slightly.
Sulphate of copper is used with great
[illegible] combined with Opium 1/4 gr each.

[illegible]

silver in gr. doses with the same [illegible]
[illegible] gr. nitre made into pill with starch, or
[illegible] every few hours, at the same time an
irritating enema composed of distilled water
[illegible] to from 3 to 10 gr. of the nitrate in solution.
[illegible] mixture is also a valuable agent
in this disease. Oil of turpentine or copaiba has
[illegible]
[illegible]
[illegible]
[illegible]
[illegible]
[illegible] bread, water, crackers, arrowroot,
milk [illegible] [illegible] which is [illegible]
[illegible] beef tea, may be allowed.

An Inaugural Dissertation on Diphtheria,

SUBMITTED

To The Examination

of the

Provost, Regents, & Faculty of Physic,

OF THE

University of Maryland

BY

WILLIAM WHITRIDGE

OF BALTIMORE.

AD.

MDCCCLXII.

Diphtheria though at present a disease of recent origin, is in reality one that has visited our race from the time when man first called forth the chastisings of God in the form of disease for his many transgressions.

Under a variety of names it has visited mankind at intervals of various length, at times from its long absence it has been known only to the fearful descriptions of authors of a former age, when under some new name it would appear to be again revivified to scourge a particular district or country.

Each epidemic like most ex-

demic disease appears to differ from the preceding in regard to many of its symptoms, and secondary, so that in no two epidemics are the same exact set of symptoms described with the exception of the diphtheritic exudation about the fauces. In one epidemic the disease will be ushered in with decided febrile symptoms, at another the throat-troubles would be the first-apparent without any fever being perceived, whilst in a third an irritable would be a constant accompaniment.

It first became of interest to the American physician about the beginning of the eighteenth century, when an epidemic the identity of

which with diphtheria can be questioned, appears to have originated in the southeastern portion of Massachusetts which slowly spread westward, occupying some two years & towards in the state of New York from whence it gradually spread over the most of this continent. About the latter portion of the last century Dr Samd. Bard of New York published in the Transactions of the American Philosophical Society a very clear, comprehensive and detailed account of a disease at that time prevalent in New York, which he termed Angina Suffocativa or Sore-throat Distemper in which all the symptoms of the disease in ques-

tion are too well marked, to be mistaken. After this epidemic the disease seems to have disappeared until within the last ten years, when under the name of diphtheria, it seems likely again to scourge the land.

The disease from want of a proper classification of its symptoms had long been confounded with a variety of diseases of that portion of the body, especially with cynanche trachealis, which from the fact of its exuding a false membrane even now confounds the two diseases. With the malignant sore throat of scarlet fever it doubtless had been mistaken especially since the two diseases are

rous habit to occupy children living in the same neighbourhood, but this broad difference will be pointed out presently. Again whilst it is epidemic, it is usual to have at the same time a sore throat prevailing possibly dependent upon the same atmospheric cause, but acting in a milder manner which has but little tendency, if any to the formation of false membrane. This disease usually commences with fever, swelling of the tonsils and uvula, together with enlargement of the glands about the neck. The swollen tonsils will usually present a number of minute white and yellow points or specks which appear to be

an altered secretion of the mucous surfaces. This complaint is seldom of any moment, but occurring during the prevalence of the crare malady is apt to deceive the physician, and give the patient undue alarm.

Of the causes that give rise to the disease, there exists the greatest difference of opinion, whilst some contend that in most cases, and perhaps in the majority, it is dependent upon an epidemic condition of the atmosphere peculiar to itself, others assert that it is propagated exclusively by contagion. For instance an eminent authority as M. Bretonneau asserts that it is only communicable by the application of the diph-

tinctive secretion to sound parts, in support of which he cites several cases occurring under his own observation which would seem greatly to strengthen his opinion. Again, no less authority than Prof. Huntsman denies that it is communicable by contact of the secretion, and in support of his assertion inoculated himself and two pupils, but without success. If such authorities differ so radically upon a point of such importance, how are we to decide? Mr Gunnow whose vast experience in this disease ought to entitle him to much credit, in his recent work on "Diphtheria" says in regard to this much disputed point "I, at least, have witnessed no case

in which the disease could be supposed to have arisen from the kind of inoculation considered by Pilcorman as essential to its propagation; and with the exceptions my informants – among whom are included many practitioners who have had the most favorable opportunities of observation – agree in asserting that they have not known the disease communicated by means of the secretions from the throats of the sick."

That diphtheria is communicable in some way there can be but little doubt, – as to the particular manner, whether by contagion, infection, or an epidemic condition of the atmo-

plain is a question to which we are unable to give a decided answer. Of these methods of communication, contagion is the one most generally received, and supported by the greater number of facts. Still that whole communities are stricken down in rapid succession, and persons arriving from healthy localities are too quickly affected to be attributed to contagion, can only be accounted for by the supposition that it is owing to an epidemic condition of the atmosphere. We may safely, I think conclude that its spread is dependent upon both methods.

Its contagious properties do

not appear to be very powerful, and incapable of exerting their effects at any great distance, of this we have proof in the fact that very slight precautionary measures suffice to prevent its further extension when once it has made its appearance independently of any epidemic influence. Still there are numerous instances, in which a person laboring under the disease, has been removed to a previously healthy place, and it has been noticed to have spread, first in the immediate family, and then by degrees to those having intercourse with the family, until it would become prevalent in a whole neighborhood. The evidence of its contage-

mucus is at least sufficient to under-
it contagious in us should we neglect
to take precautions lest it might be
communicated especially in removing
the healthy from those that are sick,
and to prevent their using in com-
mon the same household articles
and to be careful not to use the
same instrument for depressing
the tongues of others after having used
it upon those laboring under the dis-
ease. A little matter, the neglect of
which has I fear, been the origin of
many a fatal case.

The premonitory symptoms
that usher in the disease vary ac-
cording to the severity of the epidem-

ic. In moderate cases there is a slight degree of fever; a quickened pulse; and a slight headache; occasionally some nausea and vomiting; most often with some degree of difficulty in swallowing, which is commonly followed by a decided stiffness of the neck together with a swollen and tender condition of the submaxillary, cervical and cervical glands. The tongue presents a soft, creamy white, or whitish coat. The tonsils usually present a bright red hue, and are generally enlarged and swollen, the uvula, velum palati and posterior portion of the pharynx, present an altered appearance. In the severer forms

of the disease the above symptoms are exaggerated, there is great difficulty in swallowing, owing to the enormously swelled tonsils; the pulse is rapid and irregular; the tongue, instead of a whitish, is covered with brownish fur.

The exudation of false membrane commences from the twelfth to the thirty-sixth, or forty-eighth hour, and may be even prolonged for a number of days, according to the extent of the febrile excitement, - but usually it occurs during the first forty eight hours. It commences first in the form of whitish or yellowish white specks or patches, which enlarge, and quad-

nails coalesce until they cover the tonsils, and contiguous portions. This condition of thing spreads to the nasal passages, or takes a downward course into the larynx and trachea, but rarely if ever into the oesophagus, a fact that is due to diphtheritic exudation never taking place on surfaces that are unexposed to the air. There is soon after the exudation, a slightly fetid odor perceived, which often increases to a gangrenous smell.

The membrane in a few days is exfoliated, sometimes entire, at other times it gradually wears away leaving the subjacent mucous membrane paler than natural, and

a shrunken character. We would suppose that the extent of mucous membrane covered with the exudation, together with its degree of thickness, would exert some effect on the prognosis, but in many fatal cases the extent of the membrane will be very limited, while in other cases where there is a very copious exudation the disease assumes a decided & mild character, without being followed by the usual distressing sequelæ.

The duration of the disease itself, in the mild form is ordinarily from six to ten days. In some cases that prove fatal, the duration is much shorter, especially when the membrane extends into the larynx and trachea,

which generally prove fatal in one or two days. The cause and effect of this disease are not [illegible]. The fatality appears greater amongst children than adults, owing to the remaining a greater [illegible] of the tissues to diphtheritic [illegible], and also from the difficulty of children expelling the exudation by the act of the cough, as in adults, and thus to avoid the much attended membrane.

It must not be supposed that the diphtheritic deposit [illegible] only that lining the mouth, nares, and respiratory organs. It occasionally shows itself

upon the conjunctiva and mucous membranes of the genital organs, upon wounds, and on cutaneous surfaces. It is necessary for its appearance upon the cutaneous surface, that the cuticle be removed, hence it is most often met with on blistered surfaces, and ulcers. This external manifestation of the exudation does not indicate that there is an absence of it about the fauces, nor that the disease will be the less severe.

Lymphoria circumcalina is to be added on account of its peculiar cause, amongst those to be mentioned as not the least common paradigms, especially of the mucous

of deglutition and hence occurred in infancy. These cases are seen upon the subsidence of the ordinary symptoms but they may be delayed for an indefinite period and after convalescence is fully established. The paralysis of the mucosa of deglutition, is generally preceded by a difficulty in swallowing followed by a peculiar nasal twang. The velum palati is the portion first affected after which the pharynx and esophagus causing great difficulty in swallowing, in some instances to so great an extent as to interfere with the due nutrition of the patient. Occasionally the paralysis extends

be the same extremities constituting paraplegia, but this general paralysis being usually limited to those in primarily affected with the disease. In some instances the muscles of the eye will be affected by paralysis, causing strabismus. The sight, together with the senses of hearing, smell and taste occasionally may be involved. The sexual desires may be impaired or totally destroyed for a long period but this condition together with the other forms of paralysis are gradually removed.

The diagnosis of diphtheria one might imagine at first sight to be readily made, especially since

the local manifestations of the disease are so readily recognized, but even is not the case especially when the disease is complicated with an accidental eruption of an exanthematous character, or the exudation fails to be present, or is tardy in its appearance. The accidental eruption, combined with the throat-trouble is apt to be confounded with scarlet fever. The inflammation of the throat without the exudation, is in its first stage, apt to be looked upon as an ordinary inflammatory sore throat.

Though diphtheria possesses several symptoms in common with scarlet fever, there are many and

broad lines of difference too obvious to mislead the attentive observer. In severe cases of scarlet fever, there are, indeed to be seen whitish flakes of coagulable lymph, together with the superficial sloughs from the ulcerations on the tonsils so common in that disorder, but these are widely different from the true pseudo-membranous exudation of the disease under consideration. The scarlet cutaneous rash, and its subsequent desquamation, together with the preternatural red, clean and raw looking tongue, form the chief, if not the pathognomonic signs of scarlet fever, which are in strong contrast with the thick

white tongue of diphtheria. Another strong argument against the identity of the two diseases is the fact that whilst scarlet fever as a rule occurs but once, and if a second time, it partakes of a milder form, diphtheria follows no such rule, on the contrary the same person may suffer repeated attacks, often with increased violence. Again an attack of diphtheria provides no subsequent protection from scarlet fever, and vice versa, which if the two diseases were of the same nature, and dependent upon the same causes would not be likely to follow.

Between diphtheria and croup

There is even a stronger resemblance than between it and scarlet fever, indeed anatomically speaking diphtheria may become croup as far as regards the seat and character of the inflammation. Constitutionally the two diseases are widely different, inasmuch the former is essentially a blood disease, the latter is strictly local. Croup unless this disease leaves no harassing after effects, such as loss of voice, paralysis and several others mentioned above. Besides croup is eminently a disease of childhood, rarely being seen after the tenth year, which diphtheria says no respect to age.

The great diagnostic mark of this disease, and the one from which it derives its name, and above all others the most important and interesting, is the pseudo-membranous exudation. The presence of this membrane, coupled with an adynamic fever, and enlargement of the cervical glands, especially if the disease is at all prevalent, is proof positive of diphtheria.

Contrary to what might be expected our diagnosis is still further obscured by the complication of the disease with measles, scarlatina and even variloid, the two diseases being so modified by each other

that it is with the utmost difficulty that the true character of the complication can be detected. In some rare instances we may see the disease followed in rapid succession by one or more of the above named diseases.

The prognosis as in other epidemic diseases depends in a great measure on the peculiar character, and severity of the epidemic. In the simple uncomplicated form of the disease, such as is characterized by the symptoms before mentioned, our eventual prognosis in the majority of cases would be favorable, though the sequelae might be formidable and persist-

ent. It is in those cases that are complicated by the coexistence of some other prevalent diseases, especially measles, scarlet fever, or the extension of the membrane into the larynx that our prognosis is so very unfavorable. The nervous condition, together with the constitutional stamina of our patient exert no small influence; the most readily victims to diphtheria are those either weakened by previous disease, or of an anaemic and debilitated habit. Age seems to exert a decided influence on the mortality of the disease, being much greater amongst children than adults, especially

from the age of time to him, owing to the great fatality at that period of life to its running into diphtheritic croup.

Amongst the complications that are to be dreaded on account of their unfavorable influence, are hemorrhages of all descriptions, that indicate serious alterations in the character of the blood, besides by further reducing the patients condition, add greatly to the prostrating debility. In some cases instead of an open hemorrhage, we have purpura haemorrhagica.

Another remarkable, as well as serious complication, is

the presence of albumen in the urine, in this we have another striking instance of the similarity of many of the sequelæ, and complications of scarlet fever and diphtheria. This albuminuria of diphtheria does not as we would be led to suppose, indicate any lesion of the kidney, but rather changes in the circulating fluid. It is by no means a constant symptom, but when it does occur, it argues unfavorably.

The treatment adhered so eminently to should be nature will admit of, rather a treat in the least debilitating, since bleeding both general and local

mercury, iodides, or a mixture of antiphlogistic treatment must be discarded and our main reliance placed upon tonics and stimulants.

The constitutional disease being so rapidly exhausted and our alterations so marked, we should so readily alleviated, it is natural that our treatment should be divided into local and general.

The local treatment consists mainly of garglings, together with the application of nitrate of silver with the powder or solid stick, a practice that should always give preference to the use of the probang,

in my opinion. The use of this measure, especially when combined with acid, is in many cases remarkable. When the disease has advanced to some extent, or if some relief be required, the exudation if need be, may be laid aside, for instead of being it positive injury may result from the irritation created by the swaying tearing down the fibrous membranes, and from the physical exertion which is necessary on the part of the patient to submit to the operation. The strength of the solution should be gradually raised, from a half, to a drachm to the ounce of distilled water.

The use of the hydrocyanic acid as a cardiac sedative, which is remarkable below the addition of the hydrochloric acid is highly deserving be many, it combines astringent, together with antiperiodic properties, and now the further advantage that the unavoidable swallowing of part of the gargle may assist in the tonic treatment. Dr Gowan recommends that the throat should be syringed two or three times a day with the slightly diluted mixture. This may in many instances supersede the use of the nitrate of silver, the strength of the gargle should be about a drachm and a half

to the ounce of water, sweetened with honey, if the addition of hydrochloric acid is desired, this may be added in the proportion of half a drachm to the ounce of the above mixture, or if a weak gargle of the acid alone in water, should be determined upon and ounce to the pint would be sufficiently strong. A fifteen solution of tannic acid, is another application that often has a very happy effect, it appears to coagulate, or tan as it were the false membranes, and thus aid in their removal, at the same time that it constringes the congested capillaries.

When, as often happens, the fetid odor of the patient's breath increases to such an extent that it becomes disagreeable to attendants, and seems to exert an unfavorable influence on the patient's condition, it may be corrected by the use of antiseptic gargles. Of some that are supposed to exert a beneficial action, or at least independent of their antiseptic properties, Labarraque's disinfecting solution diluted with one, or ten parts of water, forms an excellent gargle of this description.

The external application of wounds to the throat is of but little use, with the exception of cases

water dressing, when there is much heat and congestion, and the congestional activity but contributorilants rarely prove of benefit, especially blisters are to be withheld on account of the depression that often follows their using. Leeches likewise as a very general rule, are to be avoided, still in the incipiency of the disease in heart robust children happy results sometimes follow their guarded use

Important as may seem the local treatment, the constitutional is the one upon which we must found our hopes, and to

which we must look for the safety and restoration of our patient. The great object that must constantly be kept in view, is that the treatment what it may, it should never be debilitating, hence purgatives can rarely if ever be used, The bowels should be kept regular and natural, and the action of the kidneys should be attentively watched, and any interruption of their functions speedily corrected as far as lie in our power.

At the commencement of the disease, as soon as possible after the application to the throat, of some of the previously mentioned

medicine, the cure being tedious and no symptoms of prostration having made their appearance, wine and stimulants seem as not required for, at least stimulants, in excess of solace appears to be the appropriate remedy, from its supposed power of modifying the condition of the state of the blood that occasions this exudation. If the action of this salt what it may, the eminent names of those that recommend it, and the mass of testimony as to its value, it lay strong for its use to be noticed. By many it is supposed to be a specific, and it is of incalculable

abscesses in connection with mercurial stomatitis, and all inflammations of the mouth. The washing of gangrenous sores with a solution of it may be used in simple solution two drachms to a pint of aromatic water, or if required in combination with hydrochloric acid, and the mineralized tincture of iron. As an internal agent it is given from half a drachm to one and a half drachm daily, dissolved in water. It had better be combined with other remedies especially tonics. In pneumonia is a very good combination.

℞ Potassæ Chloratis ℥j
Liquor Ferri Chloridi ℥ss

Acidi Muriatici Dilut. ℥j
Aquae Cinnamomi ℥iij.
S. For a child one year old a teaspoonful every four hours.

In chronic cases iodine is another remedy that is recommended by some, it possesses properties analogous to the last mentioned drug, but it is in no way preferable unless on account of its greater solubility.

The preparations of cinchona bark, the various salts of quinia, are very valuable tonic agents, they are especially beneficial in those cases where there is a decided tendency to pro-

tation and exudation. Salt of cinchonas compositus, Fowler's tincture, is a peculiar bitter in account of this kind. Dr Todd recommends quinine in large doses in this disease, not so much on account of its tonic, as for its febrifuge virtues. The quinine may be combined with iron, this combination is indicated, when there exists anaemia. The citrate of iron, and quinine is the one preferred by English physicians.

A remedy that strikes me, would be serviceable as a martial tonic particularly in that form of the disease which is char-

accompanied by a hemorrhagic tendency, the internal use of which in this complaint I do not remember anywhere to have seen, is the liquor ferri persulphatis in the dose of from fifteen to twenty drops, every four hours, sufficiently diluted. This agent as a hemostatic, becomes the more valuable from the fact that the combinations of acetate of lead and opium the usual resort in hemorrhages is here contraindicated. Hemorrhage from the lining membrane of the nares and fauces can often be completely controlled by the local application of this agent.

For the removal of the albuminuria the general treatment already laid down will as it remains the other symptoms usually correct this. However should it be persistent the use of tannic acid and the other agents usually employed in the disease when independent of diphtheria must be tried, in these cases structural disease of the kidneys is to be feared. For the removal of the various forms of paralysis, the same may be said, that the general tonic treatment laid down, will in the majority of cases, if persistently used be successful. The combination of dig-

china with our other tonic agent is indicated for the removal of the paralysis, especially that of the extremities.

The diet of our patient constitutes a powerful ally to the treatment, and for one to achieve success it must promptly be supported and assisted by the other. We designated the treatment as tonic and stimulating, the diet we must as nutritious and supporting. Beef tea, chicken soup, and the various combinations that eggs may be made to form a part of, must constitute the food of our patient. Their regular and free use must be insisted upon, and it becomes

the duty of the physician to see to their prompt administration, as much as the medicinal remedies. The patient desires or substantial dishes may partake safely be indulged, provided they do not disagree with the stomach, and are not indigestible. Egg brandy is a good form in which to combine the stimulating and nourishing treatment, it may be flavored to suit the palate of our patient. Ale also forms a remedy of great value, combining as it does stimulating, nutritious and tonic virtues; with many it may be given when all else is refused.

A source of great annoyance to the patient and our frequently increases with our treatment, is the inability of swallowing dependent upon pain of the constrictor muscles of the pharynx. When it occurs the food and medicinal agents must be conveyed to the stomach by means of a tube, or thrown up the rectum, and in this way we may sometimes sustain and afford time for our remedies to act, and even restore the patient.

As diphtheria in children is so liable to extend into the larynx, and become diphtheritic

croup it seems necessary to say a few words respecting the remedial means employed. Like in idiopathic membranous croup our great object must be the removal of the false membranes. Indeed our treatment must be as nearly allied to that of the former disease, as the asthenic nature of the latter will permit. Emetics must be used, contrary to what has been before said, but this use must be confined to those of a stimulating nature as mustard, or least not of the depressing kind. Ipecacuanhae and sulphate of zinc

form the best.

From the beneficial action which the preparations of mercury exert in modifying and controlling the exudation of coagulable lymph in true croup, we would be tempted to place our patient under its influence. This practice is however generally condemned by the most recent writers that have been consulted, with the exception of Mr Greenhow. Who says after the use of emetics they "should be followed up by small, but frequent doses of calomel, or hydrarg. c. creta. with the object of modifying the quality of the exudation."

The abbreviation of the membrane charged with a solution of nitrate of silver, to the larynx and trachea, is a remedy to which we must look for benefit.

Should our success fail in these measures, as they are not liable to do, the question that so forcibly presents itself in true croup, is here presented. May not an operation for the removal of this membrane, hold out a prospect of success? This question can be best answered, by the conclusion that Bristade in his prize essay on Diphtheria has arrived at. He says:- that there do not appear to us

to be any evils attendant upon the operation which counterpoise the indisputable benefits to be derived from it." That author then goes on to say a few words respecting the proper period for performing the operation. "Tracheotomy has been, and still is considered by a great section of the profession, as special in this country and in Great Britain, as the very last resort. Within the last few years, however, the opinion of those best able to form a judgment has materially changed. A middle period should be selected for the operation. We should not wait until the ca-

se is desperate, the patient in a complete state of prostration, in fact moribund; nor, on the other hand should we attempt the operation too early, before other remedies had been fairly and completely tried."

With this concludes what I have to say concerning this interesting, but terrible malady.

An Inaugural Dissertation on Water

Submitted to the examination of the Provost, Regents and Faculty of Physic of the University of Maryland For the degree of Doctor of Medicine

By

George S. Wingling of Maryland

1862.

To

Dr. William E. A. Aitkin,
Professor of Chemistry and Phar-
-macy in the University of Maryland.
Testimonial of Gratitude and
Affection.

Geo. S. Gingling.

Introduction.

Having in view the duty of preparing a Thesis for presentation I have during a long time sought for the subject of my theme amid the varied subjects within the domain of Medicine, which, of all the sciences is the most diversified, the most useful, and the most interesting, Embracing as it does every department of human knowledge it is like the Chameleon, having something to please every mind, and every taste, how ever fastidious.

Oftentimes the most trivial circumstances have led to great discoveries. Newton while walking in his orchard, saw an apple fall from a tree, he was led from this to inquire why it fell? He

subsequently deduced from this simple fact the important axiom that every thing was attracted by the force of gravity to the earths center, which axiom has revolutionized in part Natural Philosophy and the science of Astronomy.

Again, Galileo during an evenings visit to the cathedral in Milan noticed the swinging to and fro of the lamp that hung suspended from the celing before the sanctuary, and from this simple incident he afterwards brought to light his great theory of the Pendulum.

An obscure soap boiler of Paris, after boiling certain substances, which had been gathered on the sea shore, found his copper

kettle to be corroded by their action, and being curious, he carried the product to the cel=ebrated chemist Lavoisier, who, by careful analysis, made known to the world the exist=ence of a new elementary body viz,- Iodine, which plays an important part in medicine and the arts. Thus might be recounted innumerable ins=tances in which science has been benefited by seemingly in=significant things.

I have dwelt upon these points for the purpose of vindicating myself in writing upon the most common, and the most widely diffused of the Earth's constit=uents, viz- Water, (Aqua,) in its=self not insignificant, but

the most beautiful, the most use=ful, the most managable, the most powerful, the most terrific and the most important to life. No element or substance (atmospheric air alone excepted) is more diffused throughout nature, and none plays a more complex and varied part.

If we look above into the vast regions of space, we behold immense clouds that are nought but water in a state of vapour, These, carried about by currents of air, in due time, and under certain influences fall in innumerable drops to the earth's surface, causing the moistend ground to bring forth from its bosom the varied and delightful vegetation which

adorns the face of nature and supplies to man and beast pet=ulum for their subsistences, The water by the heat of the sun is converted into vapor and borne aloft by the air to repeat the beautiful economy esta=blished by the great Ruler of nature.

In viewing the mighty ocean, one is struck with astonish=ment at the vastness of the scene, There he beholds the waters rolling in huge masses, each wave trying to overtake the other, and each one in succession is dashed upon the white sandy beach or the rock bound shore, yet these immense masses are kept within their legitimate bounds,

In this contemplation we have much for reflection for many great truths are presented.

These changes are continually being wrought, and by those changes, humidity and fertility are imparted to the globe for it sends out its mighty arteries through the earth nourishing and strengthening the feeblest plants, as well as the giant monarch of the forest, They imbibe the moisture, extract life giving power and thus join in beauty and strength to delight and to bless our race, when its office is done, it percolates through the many veins that ramify the earths surface as it returns again to the bosom of the

great deep whence it started on its glorious mission to bless mankind, There too a habitation is afforded to innumerable varieties of fish, which supply food to higher animals and one another; there the navies of the commercial world float and the products of the different parts of the earth are exchanged for others, The luxuries of civilized nations are exchanged with each other, the merchant is enriched and the less favoured by the world's wealth find employment.

If we consider also the uses to which water is applied in the works of man, we are at a loss to recount them, see of what importance is its vapor (steam.)

By its employment as a motive power in the propelling of the steam boats and the locomotives time and space are annihilated, It is a working agent in all kinds of mechanical pursuits, acting like the long sought for machine of perpetual motion, possessing immense power, equal to that of innumerable beasts of burden, yet still obedient, capable of being controlled by a mere child,

Its use in all our domestic and culinary departments need not be dwelt upon, What shall we say of the delights afforded by its use as a bath in the hot scorching season of the "Dog days" It has been employed time out

of mind for the luxury it af-
fords in Bathing.
Pharmacy and Chemistry
could not be what they are un-
less they had at command an
agent of such varied use and
possessing such solvent pow-
ers, as it is the greatest solvent
in nature, It was used in all
the religious ceremonies of
the Jewish and Pagan forms
of worship, as typical of in-
nocence and purity and as a
means of reconciliation to
an offended Deity. Under
the Jewish dispensation the
great lawgiver Moses recom-
mended frequent ablutions
as we see in the books of Levit-
icus and in many places thro-
ughout the old Testament.

It is surprising how such a substance so widely diffused, so common, so abundant, should have remained for so long a time unknown as to its inherent chemical constituents, It was not until the last century that it was decomposed, and found to be a compound substance and not a simple element as was long supposed by the ancient alchemists. At that time Chemistry - which before had made but few advances, had made such gigantic strides that scarcely a substance in nature but was analyzed and its component parts made know by the investigations and labor of Chemists, Among the substances water was

thoroughly investigated and almost all that could be known of it was brought to light. Galvanism made known its composition as we shall see further on.

After these few reflections, which induced me to treat of this topic, I shall now enter into details, and if I fail, I hope it will not be attributed to any fault of mine, but to the subject which I treat; for before I have finished with it I will probably be drowned in a sea of trouble, and have drunk deep of the chalice of sorrow at my feeble but well meant efforts.

Protoxide of Hydrogen; —

History. The ancients regarded

water as an elementary substance, and as a constituent of most other bodies. This opinion, apparently supported by numerous facts, was held until the year 1783. — The discovery of the composition of water has been at different times claimed for Watt, Cavendish, and for Lavoisier. To Watt is certainly due the credit of having made the earliest written statements of the real composition on record.

Natural History. — Water is found in both kingdoms of nature. In the Inorganized Kingdom; — Water exists in the atmosphere; it forms seas, lakes, and rivers; it is mechanically disseminated among rocks; and, lastly, it constitutes an essential part of

some minerals. In the atmosphere it is found in two states; as a vapour (which makes about one-seventieth by volume, or one one-hundredth by weight, of the atmosphere) it is supposed to be the cause of the blue color of the sky: and in a vesicular form (5) it constitutes the clouds. The average depth of the ocean is calculated at between two or three miles, now as the height of dry land above the surface of the sea is less than two miles, it is evident that if the present dry land were distributed over the bottom of the ocean, the surface of the globe would present a mass of water a mile in depth. Even on the supposition that the mean depth of the sea

is not greater than the fourth part of a mile, the solid contents of the ocean would be 32,058,989 cubic inches. (Thousands of them.) The quantity of water disseminated through rocks must be, in the aggregate, very considerable, although it is impossible to form any correct estimate of it. Water enters in the composition of many minerals, either as water of crystallization, or combined as a hydrate.

Properties:— Pure water has following properties — at ordinary temperature it is a transparent liquid, usually described as being both odorless and colorless; but it is well known that the camel can scent water at a considerable distance.

so that to this animal it is odorous; and as regards its color we know that all large masses of water have a bluish-green color, but this is usually ascribed to the presence of foreign matters, when submitted to a compressing force equal to 30.000 lbs; on the square inch, 14 vol of this liquid are condensed into 13 vols, so that it is elastic, A cubic inch of water, at 62° F. Bar: 30 inches, weighs 252,458 grs, so that this fluid is about 815 times heavier than atmospheric air; but being the standard to which the gravities of solids and liquids are referred, its specific weight is usually said to be 1.

Water has its greatest density at 39°.2 Fahr, as a temperature

of 32° it crystallizes, and on so doing expands. The specific gravity of ice is 0.916. The fundamental form of crystallized water (ice) is the rhombohedron.

Water evaporates at all temperatures but when the barometer stands at 30 inches; water boils at 212° F, and is converted into steam, whose bulk is about 1700 times that of water, and whose Sp. Gr. is 0.622. (that of hydrogen being 1.)

In its chemical relations water may be regarded as a neutral body. It reacts neither as an acid nor as an alkaline or basic body. It combines with acids, alkalies, and many salts, when deprived of water, the oxygen acids no longer possess the qualities which characterize acid. Thus anhydrous

Sulphuric acids, does not redden litmus paper, and exhibits a disposition to unite with salts rather than with bases.

Characteristics:- Water is recognized as being volatile, incombustible; incapable of supporting combustion; miscible with alcohol in all proportions, with ether in certain proportions, and not miscible with the fixed oils. When pure it is odourless, tasteless, and possesses neither acid nor alkaline qualities. It is greedily absorbed by fused Chloride of Calcium, which has great affinity for it, and is, therefore employed for drying gases and absorbing moisture. Potassium thrown on it in the open air takes fire.

By the galvanic battery it is decomposed into two measures of hydrogen and one of oxygen gas. Anhydrous sulphuric acid and fluoride of boron produce dense white fumes in an atmosphere containing aqueous vapor, Hydrochloric acid and some other gases also produce white fumes when brought in contact with aqueous vapor. The quantity of water contained in solid bodies is frequently determined by drying them and ascertaining the loss which they in consequence suffer. Desiccation may be effected by heat, either alone, or aided by the presence of oil of vitriol. (Leslie's meth: of drying.) In some cases these methods fail

to expel the whole of the water, which can only be got rid of by the substitution of another substance for it. — In organic analysis, the quantity of water produced is determined by passing the volatile products of combustion over Chloride of Calcium contained in a tube ascertaining the increase of weight which this salt thereby gains.

Composition: — The composition of water is determined both by analysis and synthesis; If this liquid be submitted to the influence of a galvanic battery, it is decomposed into two gases; namely — one vol. of oxygen and two vol. of hydrogen. These gases, in the proportions just mentioned, may be made to re=

combine, and form water, by heat, electricity, or spongy platinum.

(Physiological) effects:—

Water is an essential part of the blood and of all living tissues. It is from this liquid that the tissues derive their properties of extensibility and flexibility. It gives fluidity to the blood, and enables the transportation of organic particles from one part ~~of~~ the body to another to be effected. It constitutes the basis of nearly all the animal secretions and nine tenths of the blood, and is the only diluent proper in a state of health.

"Nothing like simple elements dilutes
The food, or gives the chyle so soon to flow."

Lastly:- it contributes to most of the transformations which occur within the body.

Considered dietically:- Aqueous drinks serve several important purposes in the animal economy: they repair the loss of the watery parts of the blood, caused by the evaporation and the action of the secreting and exhaling organs, and they act as solvents of various alimentary substances, and thereby assist the stomach in the act of digestion. If, however, they are swallowed in excessive quantity, they may impede digestion by diluting the gastric juices. It is not improbable that water acts as a real nutritive agent - that is, assists in the

formation of the solid parts of the body. As an agent for the communication or, abstraction of heat to and from the body. Water as used in the various kinds of baths may be briefly noticed

A. Aqueous Vapour:- The vapour bath - The general effects of the Vapour bath - are those of ~~the~~ a powerful stimulant and Sudorific. It softens and relaxes the cutaneous tissue, expands the superficial vessels, accelerates the circulation of the blood, augments the frequency of the pulse and respiration, and produces copious perspiration. These effects are succeeded by a feeling of languor and a tendency to sleep. The vapour bath is distinguished from the

hot-air bath by its soothing, relaxing, and greater sudorific influences, from the hot-water bath; by its inferior power of communicating heat, by its greater sudorific tendency, and by its causing scarcely any superficial compression of the body, whereby it does not occasion the precordial oppression experienced on entering the warm bath.

In this country, it is employed for therapeutic purposes only, but in Egypt, Turkey, Persia, and some other parts of the East, and in Russia, it is in common use as a hygienic agent and luxury; and is accompanied by a process of friction, kneading and exten-

sion

of the muscles, tendons and ligaments, constituting the making of the Egyptian, (Mas er, from the Arabic word Mas: es, to touch lightly, and the sham forming of the East Indies.-
B. Warm Liquids and Moist Solids. Baths of Tepid, Warm or Hot water. — The practice of bathing is of great antiqu: ity, and precedes the dates of our earliest records, (See Pereira,) Water moderatly warm, and which neither cools nor heats the body, acts locally as an emollient: softning and rel: axing the various tissues to which it is applied, when sw: allowed it always thirsts be: comes absorbed, moistens with- and thereby attenuates the blood,

and promotes exhalation and secretion, especially of the watery fluids, Administered in large quantities it excites vomiting. The continued excessive use of water has an enfeebling effect on the system, both by the relaxing influence on the alimentary canal and by the excessive secretion which it give rise to. Injected into the veins in moderate quantities, pure water has no impressive effects; it quickens the pulse and respiration, and increases secretion and exhalation. Large quantities check absorption and cause difficulty of breathing, and an apoplectic condition, Thrown with force into the carotid artery, it kills

by its mechanical effects on the brain.

Uses. — Besides the dietetical and therapeutic purposes for which water is employed in medicine, it serves as a diluent humectant emollient, evacuant, and in pharmacy, as a solvent. Water or bland aqueous liquids are employed in some cases of poisoning. They serve to dilute acrid and irritant poisons, the intensity of which action on the stomach they lower. The presence of aqueous fluids favours the expulsion of substances by vomiting. In preternatural dryness and rigidity of parts (e.g. of mucous surfaces, the skin, wounds, and ulcers,) water and mild aqueous

fluids are useful moisteners and emollients.

The copious use of water augments the quantity of fluid thrown out of the system by the cutaneous and pulmonic surfaces, and by the kidneys. If our object is to promote diaphoresis, external warmth should be conjoined with the internal use of diluents, whereas, when we wish to excite the renal vessels, the skin should be kept cool. In inflammatory affections of the urinary passages, we advise the free employment of aqueous fluids, with the views of diluting the urine, and thereby of rendering it less acrid and irritating.

The natives of India prefer

the pouring of cold water upon the head in cases of Sun-stroke to any or every other curative measure. One of the most useful of the particular remedies employed for strengthening the body, is the cold shower bath. This tends more, perhaps than any single measure to give permanent firmness and steadiness to the system. The best test in all cases of the tonic and bracing effects of this remedy is the occurrence of a pleasant and general glow after each application of it. It is the only safe mode in which the cold bath can be used by any epileptic person (Watson's Prac: of Phys.) You may often do much by way of prevention, for persons who

are unusually liable to take colds, by the use of the shower-bath, I could mention several instances in which persons have got rid of the tendency to catch cold by the habitual use of this aspersion. It should be begun in the summer, and made tepid at first; but in a short time quite cold water may be employed; and being once begun, the practice may be continued throughout the winter. For those who cannot procure a shower-bath, or who cannot bear its shock, cold sponging will be found exceedingly salutary.

What is called Water-dressings may be regarded as a modified and improved form of poultice,

Dr Macartney considers it to operate differently to a poultice, unlike the latter, he says it prevents or diminishes the secretions of pus, checks the formation of exuberant granulations and removes all pain. Moreover, the water is not apt to become sour like a poultice and does not injure the sound parts. Water is frequently employed in pharmacy for extracting the active principles of various medicinal agents.

To speak of the domestic and medicinal uses of ice; and of the extent to which health and comfort are promoted by our being able to lock up a portion of "lingering winter," in our refrigerators, and maintain the temperature

of December in the pantry, while the thermometer stands at 84° in the shade, would be a work of supererogation. How much the comfort of a foreign voyage is promoted by a plentiful supply of fresh provisions from the ice-house of our passenger ships, is too well known to speak of. "Many lives are saved at Calcutta every year" says Dwarkanauth Tagore "by applying lumps of American ice to the head of the patient, in cases of high fever." Mr Faraday stated in a lecture at the Royal Institution, that he had been able to perform some novel and interesting philosophical experiments, by the aid of the pure transparent lumps of American ice."

Hydropathy.

The cold water-cure or Hydropathy, though not yet admitted by the medical profession among the legitimate means which may be beneficially employed in the treatment of diseases, undoubtedly includes powerful therapeutic agents, which in the hands of the educated and honorable practitioner, might be beneficially resorted to as remedial agents, It does not confine itself to the use of Cold-water only, but includes dry-sweating, and regulated clothing, The cold water is employed both internally, and externally; internally, in the forms of potions, gargles, lavements, and injections into the ears, urethra, and vagina;

Externally by baths, ablutions, wet linen sheets, and wet compresses, The baths are both general and local; the former includes full baths (portable, plunging, river and wave baths,) half baths, shower-baths, douches (including the sturz-bath, a douche on a large scale, and drop baths; the local baths comprehend the sitz-bath (sitting bath) either in still or flowing water, the foot baths, the hand bath, the head bath; the ear bath, the eye bath, &c, &c, - In the notice of Hydropathy it will not be deemed inappropriate to give a history of its first application by Vincent Priessnitz in his own language:- It was in the year 1826, when I crushed my finger, and,

and; as if by instinct, plunge this injured member into water, until it ceased bleeding, I felt the coolness agreeable to my burning and benumbed finger, and found that by holding it repeatedly in water, the finger, without the local inflammation or suppuration, after a little while mucus matter, healed in a short time, I became convinced thereby, of the healing power of cold spring water; and when I mentioned this praisingly to others, I learned from some experienced old men that this was certainly the case, and that they could relate to me a number of cases, in which cold water proved salutary above any other remedy, soon I was to realize,

in my own body, what a precious gift of the Creator for mankind lays hidden in cold water."

Pressnitz, from the experience gained by his experiments, obtained a considerable practice having treated in one year, nearly fifteen hundred patients, in his own house and in the vicinity: in almost all cases gratuitously, and not earning over-much gratitude, the physicians found it at least advisable to put an end to the "mischief." He was impeached; and as they could not forbid him to recommend to people cold water for drinking and washing, the district physician, A—, dissected the sponge used by Pressnitz in washing, in order, if possible, to discover

something therein, that might explain the miracles wrought, and of course found nothing for his trouble, — after many intrigues, and after it had been proved that Priessnitz employed only water, air, and exercise for his cures, he received at last, in part of the Prussian government permission for establishing an institution for water cures, and receive therein whomsoever would entrust themself to his care, and whom he would believe himself able to cure, Priessnitz enjoins that in pursuing the water cure, it shall be the sole object of attention that the patient should be almost always in the open air, take abundant exercise, according to his or her strength;

abstain from study, recreate in cheerful society; avoid every species of immoral excitement; and with undeviating strictness pursue the plan which he lays down.

Actions and use of Mineral Waters;-

I shall say a very few words concerning mineral waters, their actions and use, then I shall close,- The actions of mineral waters on the animal body are extremely interesting both in a scientific and practical point of view; but they are as yet ill understood, owing to the vagueness with which facts have been hitherto determined, Their effects are in some measures the same with those of the substances

which from their leading ingre=
dients, nevertheless important
differences are often observed;
and these differences seem
not always intelligible. We
can easily understand that
the operation of the leading
ingredients must be liable to
modification from the coex=
istence of purgative salts will
modify the acidulous water,
that iron will diminish the
effects of a simple purgative
one, and that an aluminous
chalybeate will have very dif=
ferent effects on the bowels
and general system from a
simple, and, still more from a
purgative chalybeate.
It is obvious that mineral
waters compared with leading

substances in them when given in artificial mixtures, possess a vast superiority as therapeutic agents through means of their adjuncts, a country atmosphere, regular exercise, the amusements of society, and freedom from the cares of business.

It seems likewise well ascertained that one remarkable peculiarity in their operation, namely - their great activity compared with the small amount of their active constituents, may arise in part from the state of dilution in which these constituents exist, and in part also from several substances of similar properties being united together in the water,

For it is well known that by attending to these two conditions the energy even of artificial preparations of the materia medica may be often considerably increased. But many entertain doubts whether all the circumstances here enumerated will account for every peculiarity observed in the action of mineral waters, more especially their great energy.

Unanimous Resolution
on
Rheumatism
Submitted to the consideration
of the
Medical Society
and
Faculty of Medicine
of the
University of Maryland
for the
Degree of Doctor of Medicine
by
Wm Carvill Dietz
of
Maryland.

Rheumatism

Rheumatism is a disease of constitutional origin, characterized by a neuralgic irritation of the nerves affecting the different tissues of the body, but principally those of the joints and muscles. It may be divided according to the part affected into the acute and chronic. The acute is usually ushered in by the symptoms of a cold, followed by pain in the joints and muscles, which, elbow, knee, hip, and ankle joints are the seat of the pain. The chronic presents the signs of the disease in the joints, the fibrous tissue may be known to be affected by the stiff and painful joints, and by the pain in the muscles. There is also a form of the disease which affects the muscles, and is called muscular

[illegible] by [illegible]

[illegible] redness of the part, the redness [illegible]

[illegible] & itself in the natural colour of the healthy tissue. The pain subsides [illegible]

[illegible] the local affection [illegible]

in one joint does not immediately [illegible]

[illegible] there but migrates to other joints

[illegible] [illegible] [illegible]

[illegible] by [illegible] itself to [illegible]

[illegible] to the corresponding joint of the

[illegible] [illegible] [illegible]

[illegible] opposite arm - or from the upper

[illegible] [illegible] [illegible]

[illegible] [illegible] [illegible]

[illegible] [illegible] [illegible]

[illegible] [illegible] [illegible]

[illegible] [illegible] [illegible]

[illegible] [illegible] [illegible]

[illegible] [illegible] [illegible]

[illegible] tongue. The fever [illegible]
[illegible] rheumatic [illegible]
[illegible] breathing as high as [illegible]
[illegible]
is covered with a white fur.
[illegible]
[illegible]
[illegible]
[illegible] are usually constipated, and
[illegible] to let fall a bilious [illegible]
[illegible]
[illegible]
[illegible]
[illegible] these the lining and covering

membranes of the heart more frequently than any other, and of the lining membrane more rarely than the coverings. The period when this complication takes place is about the eighth day from the commencement of the attack. In regard to the danger of the [illegible] it is probably [illegible] fatal, and also the most [illegible]. But endocarditis leaves the [illegible] ravages behind it, the best [illegible] disease of the valves. Previous to this may be suspected when you have [illegible] secondary affections, and a [illegible]

The detailed experience of this complication can only be told with an appeal to [illegible]

[illegible] tions. There is no abatement of the [illegible]

[illegible] children having [illegible] to have this complication, the adults, and women more than [illegible]

[illegible] and pneumonic [illegible] and pneumonic [illegible] may occur under these circumstances, and from the same causes as the febrile affections. The [illegible] the patient get but little [illegible] sometimes though it or its membranes are involved, which occurs [illegible]

the blood [illegible]

[illegible] and [illegible] [illegible]

In these cases there has been

[illegible] [illegible]

[illegible] [illegible] [illegible]

[illegible] by extension from the heart

[illegible] of the [illegible]

[illegible] of Rheumatism occurs

[illegible] [illegible] districts known as

[illegible] Rheumatism and Ague. The

[illegible] simultaneous occurrence of

[illegible] fever and Rheumatism or

[illegible] Rheumatism may be caused

[illegible] irritation of the liver, and the

[illegible] may be the secretion vari-

[illegible] of the blood which [illegible]

[illegible] Rheumatism or the Rheumat-

[illegible] [illegible] [illegible]

[illegible] [illegible] [illegible]

[illegible] and Skin, [illegible]
[illegible] of [illegible]
[illegible] occurring in persons [illegible]
debilitated, from some other cause
in this the fever is not of as high a
[illegible] pulse not as strong, but the
[illegible] Complications are apt to en-
[illegible]
murmurs are heard, it is of some con-
siderable importance to know
that it is influential of the [illegible]
[illegible] but [illegible]
[illegible] but [illegible]
[illegible] the patient to [illegible]
[illegible]
it to cease, but the sound depend-
ing on [illegible]
[illegible] by [illegible]
[illegible]
[illegible]

[illegible] is kept up for months [illegible]

Under good treatment it may [illegible]

[illegible] the symptoms give way [illegible]

[illegible]

[illegible] of the fingers.

Anatomical Lesions

[illegible]

an increase of the liquid in these cavities, though it is not changed in character. Sometimes fluid is found but it is rare. The fibro cartilages [illegible]

[illegible] living in bottling-cellars [illegible]

[illegible]

the blood, and it also shows that

[illegible] of a great amount of fibrin

and exhibits the buffy coat on being

[illegible]

Cases

[illegible]

[illegible] as opposed to cold, as heating [illegible]

[illegible] Spirits [illegible]

[illegible] and those as general [illegible]

[illegible] who have indicated the thermometer [illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

in all kinds of weather. [illegible]

[illegible]

are seldom attacked after [illegible] changes in [illegible] disease [illegible] fifteen and thirty [illegible].

Diagnosis

Gout is the only disease with which [illegible] can be mistaken for, and from which it may be distinguished by its [illegible] Gout [illegible] joints and especially the [illegible] toe and by it occurring in the [illegible] fed portion of society while Rheumatism is confined to the [illegible] illy fed. Dr [illegible] ascribes Rheu[illegible]matism [illegible] and the Rheumatism of [illegible]

Prognosis

The danger from [illegible] is from its various complications [illegible] a case of uncomplicated [illegible] [illegible]

[illegible] Tuberculosis. [illegible] [illegible]
[illegible] of the [illegible] [illegible]
and to the consideration of the other
forms next in order, the

Miliary

This form more frequently affects the
muscles than any other tissue
[illegible] of affecting many
[illegible] [illegible]
[illegible] [illegible] [illegible]
guish it from the chronic form. The
local affection is off [illegible]
in the centre, the outside [illegible]
there is no [illegible]
[illegible] something [illegible]
[illegible] felt. The tubercles [illegible]
[illegible] appear [illegible]
[illegible] causing the [illegible]
[illegible] frequently [illegible]
[illegible] [illegible]

[illegible] became sensible of the [illegible]
[illegible] an attempt to lift or move
or on some occasion calling the mus-
[illegible]
[illegible]
[illegible]
[illegible]
[illegible]
[illegible] and [illegible]
[illegible] as the legs, the eyes, the ex-
[illegible]
muscles, sheaths of the sciatic nerve,
[illegible]
[illegible]
[illegible] these affections, when a consi-
[illegible]
[illegible]
[illegible]
[illegible]
[illegible]
[illegible] called [illegible]

[illegible]

[illegible]

[illegible] of the Chest is called, Cardiagnia, and it is an affection not very unfrequent. [illegible]

[illegible] characterized by sharp shooting pains [illegible]

It [illegible] the left side of the chest [illegible]

[illegible] of the body [illegible]

[illegible] of his walking, the patient complains [illegible]

[illegible] complained to the [illegible]

[illegible], this may be distinguished from inflammatory [illegible]

[illegible] the tendency of the fibrous tissue that [illegible]
affections to extend to the grain, [illegible]
[illegible] of the testicle, causes and [illegible]
[illegible], when rheumatism affects the
[illegible]
[illegible]
nerves, aggravated by pressure.
[illegible] is painful of [illegible] when affecting
the heart [illegible]
[illegible]
sudden death, it produces great [illegible]
[illegible]
[illegible]
[illegible]
[illegible]
[illegible] constriction & pain, many
[illegible]
[illegible]
[illegible] causes, many affects

bowels giving rise to diarrhœa or dysentery. It also affects the diaphragm [illegible]

[illegible]

in common inflammation.

[illegible]

[illegible] in two or three days, [illegible]

[illegible]

[illegible]

[illegible] are the same as of the acute [illegible]

[illegible] not cause the foregoing [illegible] and be very strong.

Dig [illegible]

[illegible]

of a [illegible]

Digestive

[illegible]

of his movements.

Chronic Rheumatism

[illegible]

It is more apt to have either of the other [illegible]

attacked. [illegible] only even [illegible]

[illegible] Dermal [illegible] local affection is not painful, [illegible] the skin, [illegible] is [illegible] always [illegible], and the part is rarely affected unless the mucous membranes affected. The pain attendant is only dormant or slightly [illegible]

[illegible] epithi, Rheumatic patients [illegible] cold, damp winds [illegible] [illegible].

[illegible] rheumatism, unless there is also organic [illegible] [illegible] inflammation occurs tracing [illegible] [illegible].

Chronic Rheumatism is pain

leading it may be for years.

Reason

are the same, as in the other [illegible]

[illegible] though the predisposition is not [illegible]

in the old train the other [illegible]

(Respect

complaints with which it may [illegible]

it may be [illegible] punished, by its own [illegible]

in person known to be [illegible]

and an absence of any [illegible]

[illegible]

[illegible]

[illegible] is a variety of rheumatism, owing to the presence of rheumatic poison, [illegible] is acid in the blood &c but this [illegible]

Nervous Rheumatism

[illegible] very often assumes the character of [illegible] of the nervous system

[illegible]

[illegible]

[illegible]

[illegible]

[illegible] which is in most common use

[illegible]

[illegible]

[illegible]

[illegible]

with lordges of Pulo opium [illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible] strength [illegible] morning, and

[illegible]

[illegible] day. This is the first [illegible]

[illegible] more apt to succeed than any

other, according to the patients

[illegible] recover in about one week.

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible] Senna & Salts with

[illegible]

[illegible]

[illegible] fio in this manner it is certain [illegible], and this should be employed at [illegible]

[illegible]

[illegible] Blindness thought [illegible]

[illegible] Ointments Washing Solutions of [illegible]

[illegible]

bowels kept open by doses of Epsom salts
and Rhubarb & the blood purified by
Sulphur, & anodynes should be resorted
to when the pain is severe
but opiates should be avoided
course of Mercury so as barely to touch
the gums & then stop for a time
& repeat the course if necessary
Blisters & Iodine ointment
& Iodine internally
Iodine & Iodide of Potassium
Iodide of Potassium
Iodide of Potassium
Iodide of Potassium

[illegible]

healed. Another should be applied. [illegible]

[illegible] faints [illegible]

[illegible] too. Anodyne Doses

[illegible] also be employed with

[illegible]

[illegible]